



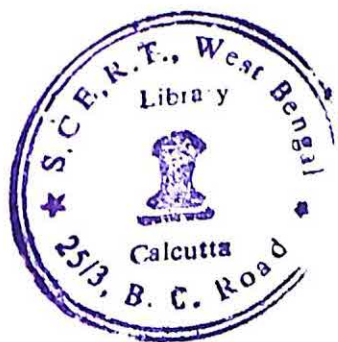
1

lc

INTER-UNIVERSITY BOARD INDIA

C
C
C
Fe
Th
mu

HANDBOOK OF THE UNIVERSITIES



1953-54

CONTENTS

	PAGES
HISTORICAL NOTE	I-VIII
INTER UNIVERSITY BOARD IN INDIA	IX-XVII
AGRA UNIVERSITY	1-10
ALLAHABAD UNIVERSITY	11-17
ANDHRA UNIVERSITY	18-133
ANNAMALAI UNIVERSITY	134-156
BANARAS HINDU UNIVERSITY	157-218
BIHAR UNIVERSITY	219-226
BOMBAY UNIVERSITY	227-330
CALCUTTA UNIVERSITY	331-393
Ceylon UNIVERSITY	394-426
DELHI UNIVERSITY	427-487
GAUHATI UNIVERSITY	488-503
GUJARAT UNIVERSITY	504-559
JAMMU & KASHMIR UNIVERSITY	560-567
KARNATAK UNIVERSITY	568-593
LUCKNOW UNIVERSITY	594-655
MADRAS UNIVERSITY	656-728
MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA	728A-728R
MUSLIM UNIVERSITY, ALIGARH	729-750
MYSORE UNIVERSITY	751-803
NAGPUR UNIVERSITY	804-849
OSMANIA UNIVERSITY	850-896
PANJAB UNIVERSITY	897-908
PATNA UNIVERSITY	909-940
POONA UNIVERSITY	941-948
RAMPUR UNIVERSITY	949-982
RANGOON UNIVERSITY	983-1000
ROORKEE UNIVERSITY	1001-1006
SAGAR UNIVERSITY	1007-1019
TRAVANCORE UNIVERSITY	1020-1056
UTKAL UNIVERSITY	1067-1085
VISVA-BHARATI UNIVERSITY	1086-1092

APPENDICES :	PAGES
Bhandarkar Oriental Research Institute, Poona-4 ...	1093
Bose Research Institute	1097
Central Building Research Institute	1099
Central Drug Research Institute, Lucknow	1104
Central Glass and Ceramic Research Institute, Calcutta	1111
Central Food Technological Research Institute, Mysore	1116
Central Leather Research Institute, Madras ...	1120
Central Road Institute Okhla, Delhi	1122
Forest Research Institute & Colleges, P. O. New Forest, Dehra Dun	1127
The Fuel Research Institute of India, Jealgora, Bihar	1135
The Harcourt Butler Technological Institute, Kanpur	1141
Indian Agricultural Research Institute, New Delhi ...	1145
Indian Institute of Philosophy, Amalner, East Khandesh	1148
Indian Institute of Science, Bangalore-3	1149
Indian School of Mines and Applied Geology, Dhanbad	1171
Indian Statistical Institute, Calcutta	1175
Index of Names	
Institute of Nuclear Physics	1180
National Chemical Laboratory	1188
Serampore College, Serampur, West Bengal	1196
The National Metallurgical Laboratory of India, Jamshedpur	1204
Shreemati Nathibai Damodar Thackersey Women's University, Bombay	1212
Tata Institute of Fundamental Research, Bombay-1	1218
Index of Names	1-21
Index of Degrees and subjects	22-29



UNIVERSITIES IN INDIA

Historical Note by Prof. Samuel Mathai

Secretary, Inter-University Board of India, 1948—1953.

A historical note on Indian Universities will not go back to the great centres of higher education in the Brahminical, the Buddhist or the Mohammedan period, as with them the modern Indian institutions have no relationship, but it has to start with the efforts of the Court of Directors of the East India Company for the spread of education in India. One of the Directors is reported to have said in 1792: "We have just lost America from our folly, in having allowed the establishment of schools and colleges and it will not do for us to repeat the same act of folly in regard to India." In 1797, however, Charles Grant considered it imperative to impart the knowledge of the English language to Indians: "With our language much of our useful literature might, and would, in time, be communicated. The Hindus would become acquainted with the history of their own species, the past and present state of the world." In 1813, the East India Company decided to set apart a sum of not less than one lakh of Rupees each year for the revival and improvement of literature as also for the introduction and promotion of a knowledge of the sciences. Cultured Indians were also conscious of this need and in 1823 Ram Mohan Roy expressed disappointment at the establishment of a Sanskrit school in Calcutta as that could only load the minds of Youth with grammatical niceties and metaphysical disquisitions. He wanted the Government to promote "a more liberal system of instruction embracing Mathematics, Natural Philosophy, Chemistry and Anatomy, with other useful sciences." The Hindu College had already been founded in Calcutta in 1817 for the purpose of imparting western knowledge through the medium of English and this had been followed in 1818 by the establishment of a college at Serampore by Christian Missionaries for the instruction of youth in Eastern Literature and European Science. In 1827, this institution obtained a Royal Charter from the king of Denmark to whom Serampore belonged and it may thus claim to be the first western University in India. Christian Missionaries were also responsible for the establishment of two colleges in Calcutta, the Bishop's College in 1820 and the General Assembly's Institution in 1830, while lay enterprise led to the foundation of the Calcutta Medical College in 1835 with the object of teaching European Medical Science.

This urge for imparting western learning had brought its champions into conflict with the advocates of oriental education and the famous Minute of Macaulay in 1835 settled the issue in favour of the former by laying down that all funds available for education were to be devoted mainly to support schools and colleges in which western learning was imparted through the medium of English.

The first proposal for founding a University in India was made by the Council of Education in Bengal in the year 1845, but was not accepted by the Board of Directors of the East India Company, who considered the scheme somewhat premature. The famous despatch of Sir Charles Wood in 1854, soon after the renewal of the Charter of the East India Company in the previous year, brought the question once more to the front, as it demanded a scheme of education for all India, far wider and more comprehensive than the Local or Supreme Government would have ventured to suggest. "Among many subjects of importance," proclaimed the epoch-making document, "none have a stronger claim to our attention than that of education. It is one of our most sacred duties to the nation, to be the means, as far as in us lies, of conferring upon the natives of India those vast moral and material blessings which flow from the general diffusion of useful knowledge and which India may under Providence derive from her connection with England."

It was in accordance with this declared policy of the Government of India, that the foundations of University education were laid in the country with the establishment of the Universities of Calcutta, Bombay and Madras in the year 1857, the necessary legislation incorporating them having been passed respectively on 24th January, 18th July and 15th September of the year. The jurisdiction of the Calcutta University, which at the beginning included practically all Northern India, was soon found to be unwieldy and it was therefore broken up by the establishment of two additional Universities, the University of the Panjab which was founded in 1882 and the University of Allahabad which followed five years later in 1887.

These five Universities were found adequate for several years to meet the needs of the entire country in the matter of higher education, though many important events had happened during the interval. An Educational Commission, presided over by Sir William Hunter, was appointed in 1882, "to enquire particularly into the manner in which effect has been given to the principles of the Despatch of 1854, and to suggest such measures as it

may think desirable in order to the further carrying out of the policy laid down." The deliberations of this Commission resulted in recommendations of a far-reaching nature with regard to the control of higher education in the country and the encouragement of private enterprise in the matter of colleges, but no additions were made to the existing Universities.

The next landmark in the history of Indian Universities was the appointment by Lord Curzon, of a Universities Commission in the year 1902. The recommendations of the Commission were mainly in the direction of reforms in the constitutions of Universities, "the educational standards should be allowed a predominant influence in them." An enactment for amending the law relating to Universities in India came into effect on the 1st September, 1904 and new Senates and Syndicates were formed in accordance with the provisions of the new code. This Act laid new responsibilities upon Universities as regards both their control of affiliated colleges and their own teaching functions.

The Universities of India were not originally teaching bodies, but the Act of 1904 specified the provision of instruction as one of their duties and gave them the power of appointing professors and lecturers, of holding and managing endowments, and of erecting, equipping and maintaining University libraries, laboratories and museums. Though the bulk of the teaching continued to be in affiliated colleges, a certain amount of higher instruction now began to be concentrated under University management. Assisted by grants from the Imperial Government and in a few cases, by private endowments, some of the Universities were successful in the formation and maintenance of colleges for ordinary instruction, in the partial substitution of University teaching for college teaching in the courses for the Master's Degree and in the organization of research and lectures of general interest.

The resolution of the Government of India on Indian Educational policy issued in 1913 drew attention not only to the need for more Universities in India, but also for a better type of University organization. "At present," the Resolution observed, "there are only five Indian Universities for 185 arts and Professional colleges in British India besides several institutions in Native States. The day is probably far distant when India will be able to dispense altogether with the affiliating University. But it is necessary to restrict the area over which affiliating Universities have control, by securing, in the first instance, a separate University for each of the leading provinces in India, and, secondly, to create new local teaching and residential Univer-

sities within each of the provinces in harmony with the best modern opinion as to the right road to educational efficiency." The country was soon to benefit by activities in both these directions.

If the earlier Universities of India were started, more or less entirely, under official auspices, there were soon to be two new Universities in the country to serve the special needs of the Hindus and Muhammadans, founded largely by the efforts of the leaders of the two communities themselves, though aided by the Government and established by Acts of Legislature like the first models. The Banaras Hindu University came into existence in 1916 and the Aligarh Muslim University in 1920. The primary aim of the former is to preserve "the best thought and culture of the Hindus and all that was good and great in the ancient civilization of India," though admission is not restricted to Hindus only and though it has extensive departments of modern learning in Art as well as in Science, including Engineering, Mining and Metallurgy, and Agriculture. The aims of the Aligarh Muslim University are on similar lines, though it is also open, like the Banaras Hindu University, to students of all communities and has all the usual departments of a modern University. The provision of faculties of Oriental Learning and of religious instruction is a special feature of these institutions. It is only necessary to add that both these Universities were based on earlier foundations, the Central Hindu College of Mrs. Annie Besant at Banaras and the Muhammadan Anglo-Oriental College of Sir Syed Ahmad at Aligarh.

The progress of higher education in Indian States was responsible for the foundation of the University of Mysore in 1916, the Osmania University of Hyderabad in 1918 and the University of Travancore in 1937. A noteworthy feature of the Osmania University is that all teaching in non-language subjects including even such technical subjects as Medicine and Engineering, is through Urdu, the official language of the State.

The constitution of Bihar and Orissa into a separate province resulted in the foundation of a new University at Patna in 1917.

The Calcutta University Commission, presided over by Sir Michael Sadler, which deliberated from 1917 to 1919, was responsible for considerable activity in the University world of India. One of its primary recommendations was that Universities should be relieved of their Intermediate work so that they

might be able to concentrate attention on real University teaching and the advancement of higher learning. The movement for the establishment of unitary and residential Universities which was also strongly advocated by the Commission received great impetus and several Universities were founded in the years immediately following the report, largely on the new lines recommended which had also already been adopted by Banaras and Mysore in 1916. Reference has been made to the Aligarh Muslim University which was founded in 1920. A University was also established in the same year at Rangoon to satisfy the aspirations of Burma. The University of Lucknow was incorporated in December, 1920. The University of Dacca came into existence on the 1st of July, 1921. The Imperial Capital of Delhi obtained a University of its own by Act VII of 1922. The Central Provinces which had to be content till then with the affiliation of their colleges to the University of Allahabad obtained a new University of their own at Nagpur in 1923.

Though the recommendations of the Calcutta University Commission have not been given effect to in any substantial manner in the University of Calcutta for which they were primarily intended, they have been responsible for many changes in the organisation of higher education in the United Provinces. After the foundation of the unitary, teaching and residential Universities of Banaras, Aligarh, and Lucknow the constitution of Allahabad was also changed in 1922, making it a University of the unitary type though the associated colleges continued to be controlled by it till July, 1927. The formation of the Agra University during the year, however, freed Allahabad completely from its external jurisdiction and it now functions entirely as a University of the unitary type. Agra is an affiliating University having jurisdiction over the colleges scattered in all parts of the United Provinces. The establishment of the Rajputana University at Jaipur in 1947 relieved Agra of responsibility for University education in Rajputana.

Another notable feature in connection with the Universities in the United Provinces is that except in the case of Aligarh and Banaras, Intermediate Education has been removed from their control with the formation of a separate Board of High school and Intermediate Education in 1921, established by a special Act of the Legislature, in accordance with one of the most important recommendations of the Calcutta University Commission. Similarly in Rajputana and Central India Intermediate education is controlled by the Board of High School and

Intermediate Education for Rajputana (including Ajmer-Merwara), Central India and Gwalior, established in 1929.

As might have been expected the establishment of Universities of a newer type could not but exercise considerable influence on the older Universities. The University of Calcutta may be said to have entered upon an entirely new chapter in her history with the Indian Universities Act of 1904, and the constitution has again been amended, more than once, since that date. It has now extensive and well-established teaching departments, though it still continues to be one of the largest affiliating Universities in India. The University of Bombay underwent complete reorganization by the Act of 1928, which reduced the proportion of the nominated to the elected members of the Senate and enabled various popular interests to be represented on it. By the new Act, the executive functions of the University are carried on by the Syndicate, while the academic work is looked after by the Academic Council. In the case of the University of Madras, the Indian Universities Act of 1904 has been superseded by the Madras University Act of 1923, with a view to establishing a teaching and residential University at Madras, while enabling the University to exercise due control over the quality of the teaching given by constituent and affiliated colleges. This Act has again been amended by Act XII of 1929.

The year 1926 witnessed the beginning of important University developments in the Madras Presidency with the establishment of the Andhra University for the special needs of the Telugu people in the north. The headquarters of the University has been located, after prolonged controversy, at Waltair. The Annamalai University of Annamalainagar at Chidambaram in South India began to function in July, 1929, and was rendered possible by the princely generosity of the Hon'ble Raja Sir Annamalia Chettiar who gave a donation of twenty lakhs of rupees for the purpose in addition to the buildings, equipment and property of the Colleges for English, Tamil and Sanskrit studies founded some years earlier by him at the same place. In 1937, the Government of Travancore established a University primarily for developing technological education, providing for original research in applied Science, and for conserving Kerala Art and Culture.

University College, Colombo, obtained a charter in 1942, and it caters to the needs of the new Dominion of Lanka. Utkal University obtained its charter in 1943, and the University of Assam in 1947. The Central Provinces with their two

distinctive areas, the Hindi-speaking and the Marathi-speaking ones, have felt the necessity of a second University, and a generous donation by Sir Hari Singh Gour led to the foundation of a University at Saugar in 1946. The Rajputana States, after a considerable amount of discussion, decided to have a University of their own with headquarters at Jaipur which started functioning in 1947. It is an affiliating University having under its jurisdiction the Colleges in Udaipur, Jaipur, Jodhpur, Bikaner, Alwar and Kotah.

With the partition of India the old University of the Panjab was no longer able to cater to the needs of Eastern Panjab which has now a University of its own with temporary headquarters at Solan. Political exigencies have also led to the formation in 1949 of the University of Jammu and Kashmir with its headquarters at Srinagar.

With independence there has come a new desire to preserve and develop local cultures and one consequence of this has been the establishment of new Universities intended chiefly to cater to the special cultural and intellectual needs of certain regions. Thus the University of Poona was established in 1948, and the Maharaja Sayajirao University of Baroda in 1949.

Proposals are afoot for a new Karnatak University at Dharwar, and a Madhyabharat University at Indore. Active attention is being given to the question of founding other Universities in certain other regions.

The growth in the number of Universities indicates the growing demand for higher education in the country. There has also been, in recent years, a great deal of internal expansion in many of the older Universities.

There are enormous problems confronting the Universities of India today: problems of finance, accommodation, equipment, staff, medium of instruction. The Universities are conscious too, of the need to become at once expressions of a re-vitalised Indian culture and channels of modern scientific knowledge. It may be confidently hoped that the Universities of India will prove adequate to the tasks and responsibilities imposed on them.

The Karnatak University has since been established at Dharwar in 1949. Subsequently the University of Gujarat at

Ahmedabad was established in 1950, Visva-Bharati, Santiniketan (West Bengal) in 1951 and the University of Bihar at Patna in 1952.

An additional University under the name of Sri Venkateswara University at Tirupati, in the newly constituted State of Andhra has been established. The Act has received the President's assent. Formal inauguration of the University is proposed to be held early in September, 1954.

Madras,
August, 1954.

V. K. Ayappan Pillai,
Secretary,
Inter-University Board, India.

THE INTER-UNIVERSITY BOARD, INDIA

The need for co-ordination in the work of the Universities in India was expressed by the Calcutta University Commission in their Report, and in 1924, acting on a resolution passed by the Congress of the Universities of the Empire, the Indian Delegates to the Congress passed a resolution recommending to the Universities of India, that an Association or a Committee of Representatives of different Indian Universities be formed, with the object of dealing with questions affecting their mutual and common interest. It was suggested in particular that such an association, if formed, should go into the question of certain difficulties which might arise owing to the conditions of admission of students to certain courses and examinations of the Universities of the United Kingdom not being suited to the qualifications which students from Indian Universities could present. The Lytton Committee on Indian students in England also hoped that the Indian University authorities would take steps at an early date to establish an Inter-University Board for the purpose of co-ordinating the courses of study in India and securing uniformity in their recognition abroad. The Indian Universities Conference held at Simla, in May 1924, passed a resolution unanimously recommending to the Universities that it was desirable that an Inter-University Organization should be established. The functions to be assigned to it were the following :—

- (i) To act as an Inter-University Organization and Bureau of Information ;
- (ii) To facilitate exchange of professors ;
- (iii) To serve as an authorized channel of communication and facilitate co-ordination of University work ;
- (iv) To appoint or recommend, where necessary, a common representative of India at an Imperial or International Conference on higher Education ;
- (v) To assist Indian Universities in obtaining recognition for their degrees, diplomas and examinations in other Universities ;
- (vi) To act as an Appointments' Bureau for Indian Universities ;
- (vii) To fulfil such other duties as may be assigned to it from time to time by the Indian Universities.

A provisional Committee consisting of representatives of the Universities was also appointed to discuss ways and means and other preliminaries with regard to the formation of this Board. It prepared an estimate of probable expenditure amounting to Rs. 24,000 per annum ; and suggested that each of the fifteen Universities then in existence in India should guarantee an annual contribution of a maximum amount of Rs. 1,600 for a term of three years with effect from 1st April, 1925, and that an advance payment of not less than Rs. 100 should be made by each University on 1st February, 1925, to meet certain preliminary expenses. Twelve Universities agreed to join the Board and made a preliminary contribution. Their representatives met at Bombay in March, 1925, to consider the Agenda, which had been prepared in the first instance by the Education Department of the Government of India. The Agenda included questions relating to the future organization and work of the Board as well as a number of references made in advance to the Inter-University Organization by the Universities' Conference held at Simla. The first annual meeting was held at Delhi in February, 1926. Since then the Board has met every year: at Banaras in February, 1927, at Madras in February, 1928, at Patna in February, 1929, at Dacca in March, 1930, at Mysore in February, 1931, at Lahore in March, 1932, at Hyderabad in February, 1933, at Delhi in March, 1934, at Calcutta in February, 1935, at Aligarh in February, 1936, at Nagpur in February, 1937, at Allahabad in December, 1937, at Bombay in February, 1939, at Waltair in December, 1939, at Trivandrum in January, 1941, at Annamalainagar (Chidambaram) in January, 1942, at Mysore in January, 1943, at Hyderabad (Deccan) in December, 1943, at Patna in December, 1944, at Colombo, in December, 1945, at Jaipur in December, 1946, at Cuttack in December, 1947, at Madras in December, 1948, at Banaras in February, 1950, at Rangoon in December, 1950, at Delhi in December in 1951, at Waltair in January, 1953 and at Mysore in December, 1953. All the 31 Universities in India, Burma and Ceylon are now members of the Board.

Besides the annual meetings attended by the representatives nominated to the Board by the Universities of India, Burma and Ceylon, the Board also holds larger Quinquennial Conferences of delegates from all the Universities. Apart from the first Conference held at Simla in May, 1924, prior to the establishment of the Inter-University Board, Conferences of Indian Universities were held at Delhi in October, 1929, opened by His Excellency Lord Irwin, Viceroy and Governor-General of India ; at Delhi again in March, 1939, opened by His Excellency Lord Willingdon,

Viceroy and Governor-General of India ; in Bombay in March, 1939, opened by His Excellency Sir Roger Lumley, Governor of Bombay ; and at Hyderabad (Deccan) in December, 1943, opened by His Excellency, Col. Nawab Sir Muhammad Ahmad Said Khan Bahadur, President of the Executive Council of the Hyderabad State and Chancellor of the Osmania University. The Sixth Quinquennial Conference was held at Madras in December, 1948, and the Seventh Quinquennial Conference was held at Mysore in December, 1953.

The Inter-University Board has in recent years made itself responsible for Inter-University Sports and Athletics. A subsidiary body called the Inter-University Sports Board consisting of a Sports representative from each University has been set up to conduct tournaments in all the major games and in athletics.

The office of the Inter-University Board was moved to Madras from Delhi in February, 1954, and is housed in the Senate House by the courtesy of the Madras University.

The University Education Commission presided over by Dr. S. Radhakrishnan recommended in their report (December 1948—August 1949) that a Commission "for allocating both recurring and Capital grants to Universities from the Centre" be established to help improve and develop University Education in India. These recommendations of the Commission were approved by the Central Advisory Board of Education in India, and the Inter-University Board which at a Conference held at Madras in 1952, reiterated "the oft repeated demand of the Inter-University Board that a University Grants Commission should be set up by the Government of India on the lines on which such a Committee is working at present in Great Britain". In pursuance of these recommendations, the Government of India established a University Grants Commission in November, 1952. Its main functions are to advise Government on the allocation of Grants-in-aid from public funds to the Central Universities, to other Universities and institutes of higher learning and to advise Government, Universities and other institutions of higher learning in respect of any question referred by the Government or Universities to the Commission. The Commission is composed of the Chairman (Dr. S. S. Bhatnagar), three persons chosen from amongst Vice-Chancellors of Universities and Heads of recognised Institutions, three non-official members from amongst persons distinguished in the field of education, administration or finance to be appointed by the Government of India and two

representatives of the Government of India—one from the Ministry of Education and the other from the Ministry of Finance. The following Universities are represented by their Vice-Chancellors on the Commission as at present constituted :—

1. Aligarh ... Dr. Zakir Husain, M. A., Ph. D.
2. Bombay ... Sir Navroji J. Wadia, Kt., B. A.
(Bom. & Cantab), Bar-at-Law.
3. Calcutta ... Dr. J. C. Ghosh.
4. Madras ... Dr. Sir A. L. Mudaliar, M. D.,
LL. D., D. Sc., D. C. L., FRCOG.,
FACS.

Madras,
August, 1954

V. K. Ayappan Pillai,
Secretary,
Inter-University Board, India.

INTER-UNIVERSITY BOARD OF INDIA

List of Representatives 1952-53

- Shri K. K. Handiqui, M.A. (Cal. et Oxon.),
Vice-Chancellor, University of Gauhati, Gauhati
(President).
- Shri C. V. Mahajan, M.A. (Oxon.),
Vice-Chancellor, Agra University, Agra.
- Prof. A. C. Banerji, M.A. (Cantab.), M.Sc. (Cal.), I.E.S.
(Retd.), FRAS (Eng.), F.N.I., Vice-Chancellor, University of Allahabad, Allahabad.
- Dr. V. S. Krishna, B.A. (Oxon.), Ph.D. (Vienna),
Vice-Chancellor, Andhra University, Waltair.
- Dr. R. K. Shammukham Chetty, B.A., B.L., D.Litt.,
Vice-Chancellor, Annamalai University, Annamalai-
Nagar.
- Acharya Nerendra Deva, M.A., LL.B.,
Vice-Chancellor, Banaras Hindu University, Banaras.
- Shri Shyamnandan Sahay, M.P.,
Vice-Chancellor, Bihar University, Patna-5.
- Sir Navroji J. Wadia, Kt., B.A. (Bom. & Cantab.), Bar-at-Law,
Vice-Chancellor, University of Bombay, Bombay.
- The Hon'ble Justice Sambhunath Banerjee, M.Sc., B.L.,
Barrister-at-Law, Vice-Chancellor, University of Calcutta,
Calcutta.
- Sir Ivor Jennings, K.C., Litt.D., LL.D.
Vice-Chancellor, University of Ceylon, Colombo.
- Dr. S. N. Sen, M.A., Ph.D., D.Litt.,
Vice-Chancellor, University of Delhi, Delhi.
- The Hon'ble Chief Justice Sri Janki Nath Wazir, B.A., LL.B.
(Lond.), Bar-at-Law, Vice-Chancellor, Jammu and
Kashmir University, Srinagar.
- The Hon'ble Justice Sir Harsiddhbhai V. Divatia, Kt., M.A.,
LL.B., Vice-Chancellor, Gujarat University, Ahmedabad-9.
- Shri C. C. Hulkoti, B.A., LL.B.,
Vice-Chancellor, Karnatak University, Dharwar.

- Acharaya Jugal Kishore, M.A. (Oxon.), M.L.A.,
Vice-Chancellor, University of Lucknow, Lucknow.
- Sir A. L. Mudaliar, M.D., LL.D., D.C.L., D.Sc., F.R.C.O.G.,
F.A.C.S., Vice-Chancellor, University of Madras, Madras.
(Chairman, Standing Committee).
- Shrimati Hansa Mehta, B.A. (Hons.),
Vice-Chancellor, Maharaja Syajirao University of Baroda,
Baroda.
- Dr. Zakir Husain, M.A., Ph.D.,
Vice-Chancellor, Muslim University, Aligarh.
- Dr. B. L. Manjunath, B.A., M.Sc. (Lond.), D.Phil. (Oxon.),
Vice-Chancellor, University of Mysore, Mysore.
- Pandit K. L. Dubey, B.A., LL.B.,
Vice-Chancellor, University of Nagpur, Nagpur.
- Dr. S. Bhagavantam, M.Sc. (Hons.), D.Sc., F.A.S.C., F.N.I.,
Vice-Chancellor, Osmania University, Hyderabad-
(Deccan).
- Dewan Anand Kumar, M.A. (Cantab.),
Vice-Chancellor, University of Panjab, Solan (Simla Hills).
- Dr. K. N. Bahl, D.Sc. (Panjab), D.Phil., and D.Sc., (Oxon.),
F.Z.S., F.N.I., Vice-Chancellor, University of Patna,
Patna-5.
- The Right Hon'ble Dr. M. R. Jayakar, P.C., M.A., D.C.L.,
(Oxon.), LL.D., Vice-Chancellor, University of Poona
Ganeshkhind, Poona-7.
- Dr. G. S. Mahajani, M.A., Ph.D.,
Vice-Chancellor, Rajputana University, Jaipur.
- Dr. Htin Aung, M.A., B.Litt., Ph.D., D.Litt., Bar-at-Law,
Rector, University of Rangoon, Rangoon.
- Dr. C.A. Hart, T.D., D.Sc. (Eng.), Ph.D., M.I.C.E., F.R.I.C.S.,
A.M.I., Struct. E., Vice-Chancellor, University of
Roorkee, Roorkee.
- Dr. R. P. Tripathi, M.A., D.Sc. (London),
Vice-Chancellor, University of Saugar, Saugar.
- Sir A. Ramaswami Mudaliar, D.C.L.,
Vice-Chancellor, University of Travancore, Trivandrum.
- Dr. Parsuram Misra, M.Sc. (Cal.), Ph.D., (Leeds.),
Vice-Chancellor, Utkal University, Cuttack.
- Shri Rathindranath Tagore,
Vice-Chancellor, Visva-Bharati University, Santiniketan.

Succession List of Chairmen of the Inter-University Board of India and the places where the annual meetings were held.

- The Rt. Hon'ble Dr. Sir Akbar Hydari, Nawab Hyder Nawaz Jung Bahadur, B.A., LL.D., Finance Member, Executive Council and Member, University Council, Osmania University, Hyderabad-Dn. (1925—27), (*Delhi and Banaras*).
- Sir R. Venkataratnam Naidu, Kt., M.A., Vice-Chancellor, University of Madras. (1927-28). (*Madras*).
- Prof. A. G. Woolner, C.I.E., M.A., Vice-Chancellor, The Punjab University, Lahore. (1928—30), (*Patna and Dacca*).
- Principal A. B. Dhruva, M.A., LL.B., Pro-Vice-Chancellor, Banaras Hindu University, Banaras. (1930-31), (*Mysore*).
- The Rev. Dr. W. S. Urquhart, M.A., D.Litt., D.D., D.L., Principal, Scottish Church College, Calcutta. (1931-32), (*Lahore*).
- Diwan Bahadur Sir K. R. Ramunni Menon, Kt., M.A., (Cantab.), Vice-Chancellor, University of Madras, Madras. (1932-33), (*Hyderabad-Dn.*).
- Prof. G. H. Langley, M.A., I.E.S., Vice-Chancellor, University of Dacca, Ramna, P. O. Dacca. (1933-34), (*Delhi*).
- Prof. P. A. Wadia, M.A., University of Bombay, Bombay. (1934-35), (*Calcutta*).
- R. Littlehailes, Esq., C.I.E., M.A., Vice-Chancellor, University of Madras, Madras. (1935-36), (*Aligarh*).
- Pandit Amaranatha Jha, M.A., Professor of English, University of Allahabad, Allahabad. (1936-37), (*Nagpur*).
- Dr. C. R. Reddy, M.A. (Cantab.), D.Litt., M.L.C., Vice-Chancellor, Andhra University, Waltair. (1937-38), (*Allahabad*).
- Diwan Bahadur S. E. Runganadhan, M.A., L.T., M.L.C., Vice-Chancellor, University of Madras, Madras. (1938-39), (*Bombay*).
- Rajakaryapravina N. S. Subba Rao, M.A., (Cantab.), Barrister-at-Law, Vice-Chancellor, University of Mysore. (1939-40), (*Waltair*).
- Dr. A. C. Sen Gupta, M.A., D.Litt., I.E.S. Director of Public Instruction and Secretary to Government, Central Provinces and Berar, Nagpur. (1940-41), (*Trivandrum*).

The Hon'ble Dr. Syamaprosad Mookerji, M.A., B.L., D.Litt., Barrister-at-Law, M.L.A., 77, Asutosh Mookerjee Road, Calcutta. (1941-42), (*Annamalainagar*).

Prof. A. B. A. Haleem, B.A. (Oxon.), Bar-at-Law, Pro-Vice-Chancellor, Aligarh Muslim University, Aligarh. (1942-43), (*Mysore*).

Sir S. Radhakrishnan, M.A., D.Litt., LL.D., F.B.A., Vice-Chancellor, Banaras Hindu University, Banaras. (1943-44), (*Hyderabad-Dn.*).

Dr. Sachchidanand Sinha, D.Litt., Barrister-at-Law, M.L.A., Vice-Chancellor, University of Patna, Patna. (1944-45), (*Patna*).

Sir Maurice Gwyer, K.C.B., K.C.S.I., D.C.L., LL.D., Vice-Chancellor, University of Delhi, Delhi. (1945-46), (*Colombo*).

Dr. J. C. Chatterjee, M.A., D.Litt., M.L.A., (Central), Vice-Chancellor, University of Agra, Agra. (1946-47), (*Jaipur*).

Prof. N. K. Sidhanta, M.A. (Cantab.), Professor of English and Dean of the Faculty of Arts, University of Lucknow, Lucknow. (1947-48), (*Cuttack*).

Sir A. L. Mudaliar, M.D., LL.D., D.C.L., D.Sc., F.R.C.O.G., F.A., C.S., Vice-Chancellor, University of Madras, Madras. (1948-49), (*Madras*).

Sir Ivor Jennings, M.A., D.Litt., LL.D., Vice-Chancellor, University of Ceylon, Colombo. (1949-50), (*Banaras*).

Pandit K. L. Dubey, B.A., LL.B., Vice-Chancellor, University of Nagpur, Nagpur. (1950-51), (*Rangoon*), (*President*).

Dr. G. S. Mahajani, M.A., Ph.D., Vice-Chancellor, University of Rajputana, Jaipur. (1951-52), (*Delhi*), (*President*).

Lt.-Col. K. K. Handiqui, M.A., (Cal. et Oxon.), Vice-Chancellor, University of Gauhati, Gauhati. (1952-53), (*Waltair*), (*President*).

Succession List of Secretaries of the Inter-University Board of India

1. Prof. N. S. Subba Rao, M.A., (Cantab.), Bar-at-Law, University Professor of Economics, and Principal, Maharaja's College, Mysore. (1925-27).

2. Prof. P. Seshadri, M.A., Dean, Faculty of Commerce, University of Agra and Senior Professor of English, Sanatan Dharma College, Kanpur. (1927—32).
3. Prof. A.R. Wadia, B.A. (Cantab.), Barrister-at-Law, Professor of Philosophy, Maharaja's College, Mysore. (1932—37).
4. Prof. N. K. Sidhanta, M.A. (Cantab.), Dean, Faculty of Arts, and Professor of English, University of Lucknow, Lucknow. (1937—42).
5. Prof. H. K. Sherwani, M.A. (Oxon.), F. R. Hist. S., Barrister-at-Law, Head of the Department of History and Political Science, Osmania University, Hyderabad Deccan. (1942—45).
6. K. P. Sinha, Esq., M.A., (Cantab.), Principal, G.B.B. College, Muzaffarpur. (1945 to 31st January 1947).
7. Dr. J. C. Chatterjee, M.A., D.Litt., M.L.A., (Central), 10-A, Cavalry Lines, Delhi (1st February, 1947 to 31st October, 1947).
8. Samuel Mathai, Esq., M.A. (Oxon.), Indar Villa, Roopnagar, Delhi. (1st April, 1948 to 28th December, 1953).
9. Prof. V. K. Ayappan Pillai, M.A. (Madras), B.A. (Oxon.), Retd. Principal, Presidency College, Madras. (1st February, 1954).

AGRA UNIVERSITY

Introductory : Character of the University

The Agra University was brought into existence on the 1st of July, 1927, by an Act of the Legislature of the Uttar Pradesh, for the purpose of affiliating the Colleges associated with the University of Allahabad, as reorganized by the Allahabad University Act, 1921, so as to set the University of Allahabad free to function as a unitary, teaching and residential University by relieving it of the responsibility of controlling the quality and character of teaching given in its name by the associated colleges (situated outside the territorial area of 10 miles' radius from the Convocation Hall of the University), and placing such responsibility upon an affiliating University at Agra.

The jurisdiction of the University extends over Uttar Pradesh, Madhya Bharat, Vindhya Pradesh, Bhopal and Ajmer States.

OFFICERS OF THE UNIVERSITY

Chancellor

Shri M. K. Munshi,

Rajyapal, Uttar Pradesh (*Ex-Officio*)

Vice-Chancellor

Lt.-Col. C. V. Mahajan, M.A. (*Oxon.*), M.L.A.

Registrar

Dr. L. P. Mathur D.Sc.

Deans of the Faculties

- | | | | |
|-----------------------|-----|-----|---|
| 1. Faculty of Arts | ... | ... | Shri K. P. Bhatnagar, M.A.,
LL.B., Principal, D. A. V.
College, Kanpur. |
| 2. Faculty of Science | ... | ... | Shri G. R. Chaturvedi, M.A.,
St. John's College, Agra. |

- | | | |
|--|-----|---|
| 3. Faculty of Law | ... | Dr. Brijendra Swarup, LL.D.,
161, Civil Lines, Kanpur. |
| 4. Faculty of Commerce | ... | Dr. Kashi Prasad, M.A., Ph.D.,
Principal, K. G. K. College,
Moradabad. |
| 5. Faculty of Agriculture | ... | Dr. B. L. Sethi, M.Sc., Ph.D.,
Principal, Agricultural Col-
lege, Kanpur. |
| 6. Faculty of Medicine | ... | Dr. B. Sahai, M.D., Principal,
G. R. Medical College,
Gwalior. |
| 7. Faculty of Veterinary
Science and Animal
Husbandry. | | Shri P. G. Pande, M. Sc.,
M.R.C.V.S., Principal, U. P.
College of Veterinary Science
and A. H., Mathura. |
| 8. Faculty of Engineering | ... | Shri M. C. Bijawat, C.E.,
M.I.E., Principal, Engineering
College, Dayalbagh, Agra. |

Constitution of the University

The authorities of the University are :—

The Senate, the Executive Council, the Academic Board, the Board of Inspection, and the Faculties of Arts, Science, Law, Commerce, Agriculture, Medicine, Veterinary Science and Animal Husbandry and Engineering. The Senate is the Supreme Governing body of the University and the Executive Council the Executive Body ; the Academic Board advises the Executive Council on academic matters and the Board of Inspection is responsible for the periodical inspection of affiliated colleges. Each Faculty constitutes its Boards of Studies, whose reports, regarding the courses of study, it considers and forwards to the Academic Board with its own recommendations.

Teaching and Affiliated Colleges

There are at present sixty-two colleges affiliated to the University, a list of which is given below. The University has no teaching staff of its own, but teaching is carried on at

present in the affiliated colleges, which have their own staff.

Under the Allahabad University Act, 1921 [Section 7 (5)], the affiliated colleges were not allowed to maintain Intermediate classes for the purpose of preparing students for admission to the University, beyond a period of five years from the commencement of the Allahabad University Act, 1921, save with the previous sanction of the Local Government and for such period as the Local Government may direct, but under the Agra University Act (Section 39) this restriction on the maintenance of the Intermediate classes has been removed and it no longer applies to the affiliated colleges of the University, which are permitted to maintain or comprise classes, also in preparation for the Intermediate Examination of the Board of High School and Intermediate Education of the Uttar Pradesh or of Madhya Bharat Secondary Education Board or of Central Board of Secondary Education, Ajmer. The University, however, exercises control over the quality and the character of teaching given in the degree and post-graduate classes only, and not in the Intermediate classes in the affiliated colleges which is the special feature of the Agra University Act.

Affiliated Colleges

<i>Name of College</i>	<i>Name of the Principal</i>
1. Agra College, Agra.	Dr. N. K. Sethi, D.Sc.
2. St. John's College, Agra	Lt.-Col. C. V. Mahajan, M.A. (Oxon.), M.L.A.
3. Meerut College, Meerut.	Shri Madan Mohan, M.A.
4. Christian College, Indore.	The Rev. A. M. Dalaya, M.A. (Oxon.), LL.B.
5. Holkar College, Indore.	Shri H. Ghosh, M.A.
6. V. S., S. D. College, Kanpur.	Shri L. C. Tandon, M.A., M.Com.
7. Bareilly College, Bareilly.	Shri S. B. Banerji, M.A.
8. Govt. College, Ajmer.	Shri V. V. John, M.A.

AGRA

Name of College

Name of the Principal

9. D. A. V. College, Kanpur. Shri K. P. Bhatnagar, M.A.,
L.L.B.
10. Victoria College, Gwalior. Shri D. N. Bhalla, M.A.
11. St. Andrew's College, Gorakhpur. Shri P. T. Chandi, M.A., M.Sc.
12. Christ Church College, Kanpur. The Rev. R. G. Slater, M.A.
13. Agricultural College, Kanpur. Dr. B. L. Sethi, M.Sc., Ph.D.
14. Kamla Raja Girls' College, Gwalior.
15. Balwant Rajput College, Agra. Dr. R. K. Singh, M.A., M.Ed.
16. Sarojini Naidu Medical College, Agra. Dr. H. N. Bhatt, M.B., F.R.C.S.,
D.M.R. & E., P.M.S.
17. A. S. Jat College, Lakhaoti. Dr. G. N. Pathak, M.Sc., Ph.D.
(London.)
18. Darbar College, Rewa. Dr. J. K. Das Gupta, M.A.,
Ph.D.
19. S. M. College, Chandausi. Shri K. Kumar, M.Sc.
20. Madhava College, Ujjain. Shri T. P. Bajpai, M.A. (Offg.)
21. N. R. E. C. College, Khurja. Shri P. D. Gupta, M.A.
22. D. A. V. College, Dehra Dun. Dr. R. N. Saksena, M.A. Ph.D.,
D.Litt.
23. G. R. Medical College, Gwalior. Dr. B. Sahai, M.D.
24. Shibli National College, Azamgarh. Shri Shaukat Sultan, M.A.,
LL.B.

<i>Name of College</i>	<i>Name of the Principal</i>
25. Women's Training College, Dayalbagh, Agra.	Smt. S. P. Sukhia, M.A., T.Dip.
26. Radhasoami Educational Institute, Dayalbagh, Agra.	Shri B. P. Johri, M.A.
27. Barahseni College, Aligarh.	Dr. M. C. Mathur, M.A., Ph.D.
28. A. K. College, Shikohabad.	
29. D. S. College, Aligarh.	Shri V. G. Jhingran, M.Sc., B.Ed.
30. K. R. College, Mathura.	Shri D. N. Bhargava, M.A.
31. Gandhi Faizam College, Shahjahanpur.	Shri M. R. Kidwai, M.Sc., L.T.
32. Satishchandra College, Ballia.	Dr. K. D. Upadhyaya, M.A., Ph.D., (Offg.)
33. M. G. M. Memorial Medical College, Indore.	Dr. B. C. Bose, M.D., D.Sc. D.T.M.
34. U. P. College of Veterinary Science and Animal Husbandry, Mathura.	Shri P. G. Pande, M.Sc., M.R.C.V.S.
35. K. G. K. College, Moradabad.	Dr. Kashi Prasad Mathur, M.A. Ph.D.
36. T. D. K. College, Jaunpur.	Shri H. N. Singh, M.A., M.L.C.
37. Raghunath Girls' College, Meerut.	Smt. L. Sharma, M.A.
38. Subhas National College, Unao.	Shri Lakhsmi Nath Misra, M.A. LL.B., L.T.
39. D. J. College, Baraut.	Mr. A. B. Malkani, M.Sc.

*Name of College**Name of the Principal*

- | | |
|---|--|
| 40. Mahanand Mission Hari-
jan College, Ghaziabad. | Shri B. S. Mathur, M.A., L.T. |
| 41. Jat Vedic College, Baraut. | Ch. Shiva Singh, M.A. |
| 42. Yuvraj Dutta College,
Lakhimpur-Kheri. | Th. Jaideo Singh, M.A. |
| 43. M a h a r a j a College,
Chhatarpur. | Dr. Hari Ram Misra, M A.
D.Litt. |
| 44. Raza College, Rampur. | Shri A. Shakoor, M.A. |
| 45. Coronation Hindu Col-
lege. Moradabad. | Dr. Jwala Prasad Singhal, M.A.,
Ph.D. |
| 46. Hamidia College, Bhopal. | Shri P. C. Malhotra, M.A. |
| 47. Bundelkhand College,
Jhansi. | Shri Sukh Swarup, M.A. |
| 48. S. D. College, Muzaffar-
nagar. | Shri Dhuru Singh, M.A. |
| 49. M. P. College, Gorakhpur. | Shri H. P. Sahi, M.A. |
| 50. Engineering College,
Dayalbagh, Agra. | Shri M. C. Bijawat, C.E. |
| 51. D. L. S. G. Degree Col-
lege, Almora. | Shri A. D. Pant, M.A. |
| 52. D. A. V. College, Muzaf-
farnagar. | Shri Sitai Prasad, M.Sc. |
| 53. S. S. V. College, Harpur. | Dr. I. D. Tavakley, D.Litt. |
| 54. Savitri Girls' College,
Ajmer. | |
| 55. D. A. V. College, Orai. | Shri Kishori Lal Khare, M.A. |
| 56. Faizabad Degree College,
Faizabad. | Dr. H. Hukku, D. Litt. |

*Name of College**Name of the Principal*

- | | |
|--|--------------------------------------|
| 57. D. A. V. College, Ajmer. | Shri D. V. Vable, M.A. |
| 58. Th. Devi Singh Bisht,
Govt. Degree College,
Nainital. | Dr. A. N. Singh, M.A., Ph.D. |
| 59. Kashi Naresh, Govt.
Degree College, Gyan-
pur (Banaras). | Shri Ali Ameer, M.A. |
| 60. M. B. College of Agri-
culture, Gwalior. | Shri R. A. Misra, M.A. (offg.) |
| 61. N. A. S. College, Meerut. | Shri Banwari Lal Sharma, M.A. |
| 62. Gokaldas Hindu Girls'
College, Moradabad. | (Km.) B. Sen Gupta, M.A.,
B.Litt. |

Detailed information regarding the staff, the hostels attached, students to the colleges, libraries, laboratories and museums, fees, freeships, prizes, and medals, bursaries and scholarships can be obtained from the prospectus of each college, or by correspondence with the Principal.

Degrees, Admission to Examinations and Courses of Study

Degrees

In the Faculty of Arts, the University grants at present the B.A., M.A., B.T., Ph.D., and D.Litt. degrees; and in the Faculty of Science the B.Sc., M.Sc., Ph.D. and D.Sc. degrees. The Professional degrees are the B.Sc. (Pharm.) in the Faculty of Science, the Master of Laws and the Bachelor of Laws in the Faculty of Law, the Master of Commerce and the Bachelor of Commerce in the Faculty of Commerce, the Master of Science in Agriculture, the Bachelor of Science in Agriculture in the Faculty of Agriculture, the Bachelor of Medicine and Bachelor of Surgery (M.B., B.S.), Doctor of Medicine (M.D.) and Master of Surgery (M.S.) in the Faculty of Medicine, the Bachelor of Veterinary Science and Animal Husbandry (B.V.Sc. & A.H.) in the Faculty of Veterinary Science and Animal Husbandry and Bachelor of Science in Engineering [B.Sc. (Engg.)] in the Faculty of Bachelor of Science in Engineering.

Admission to Examinations and Period of Study

Arts and Science

B.A. and B.Sc.—Courses of study for the Bachelor's degree (excluding the B.T. degree) in Arts or in Science extend over a period of two academic years and only those Candidates are admitted to the examinations, which are held at the end of the second academical year who, after passing (i) the Intermediate Examination of the Board of High School and Intermediate Education, Uttar Pradesh, or of the Central Board of Secondary Education, Ajmer, or of the Madhya Bharat Secondary Education Board, Gwalior or of an Indian University incorporated by any law for the time being in force, or (ii) the Higher School Certificate Examination conducted by the Syndicate of the Cambridge University or (iii) the Intermediate Examination of the Travancore University or (iv) the Pre-Medical Examination of the Delhi University or (v) the Pre-Engineering Examination of the Delhi Polytechnique, have attended a regular course of study in an affiliated college.

B.T.—Courses of study for the B. T. degree extend over a period of one academical year and only those candidates are admitted to the examination who, after taking the Bachelor's or Master's degree of this or some other recognized University, have completed a regular course of study in a college affiliated or recognised for the purpose by the University.

M.A. and M.Sc.—The courses of study for the Master's degree in Arts as well in Science extend over a period of two years and there are two examinations, *viz.*, the Previous Examination and the Final Examination. The Previous Examination is held at the end of the first year and only those candidates are allowed to appear at the examination who, after taking the Bachelor's degree of the University (in Arts, Science, Commerce or in Agriculture, as the case may be) or a corresponding Bachelor's degree of an Indian University incorporated by any law for the time being in force have completed a regular course of study in an affiliated college for one academical year. A candidate is not admitted to the Final Examination for the degree of Master of Arts or of Master of Science, unless he has passed the Previous M.A. or M.Sc. Examination of the University, as the case may be, and has completed a regular course of study for one academical year in an affiliated college.

Ph.D.—The Ph.D. degree is awarded on the basis of research

work extending over a period of two years carried on in a college affiliated to the University, a research institute, University, or a Government Department recognised for the purpose by the University under a supervisor to be nominated by the Executive Council. Only M.A.s, or M.Sc.s, M.Com.s or M.Sc. (Ag.)s as the case may be, of this University or of any other University, recognised for this purpose by the Agra University, are qualified to carry on research work for the Ph.D. degree and must be of at least three years' standing before their thesis can be approved and the degree of Ph.D. conferred upon them.

D.Litt. and D.Sc.—The degree of D. Litt. or D.Sc. is awarded on the basis of an original thesis upon any subject comprised within the Faculty concerned. Only Doctors of Philosophy of at least two years' standing can supplicate for the D.Litt. or D.Sc. degree. Master of Arts, or Master of Commerce, or Master of Science, or Master of Science in Agriculture of this or any other recognised University of at least five years' standing can also supplicate; provided the Research Degree Committee grants them exemption from the Ph.D. degree consequent to any work they may have published.

Bachelor of Science in Pharmaceutical Chemistry

B.Sc. (Pharm.)—Admission to the B.Sc. (Pharm.) Examination is granted to those who, after passing the Intermediate Examination of the Board of High School and Intermediate Education, Uttar Pradesh, or of an Indian University incorporated by any law for the time being in force, or an examination recognised by the University as equivalent thereto, with Chemistry, Physics and Biology, have attended a regular course of study in Pharmaceutical Chemistry in an affiliated college for two academical years.

Law

LL.B.—The examination for the degree of Bachelor of Laws consists of two parts: (1) The Previous Examination, and (2) the Final Examination. A candidate who, after taking the Bachelor's degree of the University or of an Indian University recognised for the purpose by the Executive Council of the University, completes a regular course of study in a law class in an affiliated college for one academical year, is eligible for admission to the Previous Examination in Law. For admission to the Final Examination in Law, a candidate is required to put

in another year in an affiliated college after passing the Previous Examination in Law of the University.

LL.M.—Candidates for the LL.M. Examination must have passed at least two years previously the examination for the degree of Bachelor of Laws of the University or of any other Indian University recognised for the purpose by the Executive Council and have completed a regular course in any affiliated college for one academic year in any of the sessions subsequent to his passing the Bachelor of Laws Examination.

Commerce

B.Com.—Admission to B.Com. Examination is granted to those who, after passing any of the following examinations, have prosecuted a regular course of study at a college affiliated to the University for the B.Com. degree:—

- (i) The Intermediate Examination of the Board of High School and Intermediate Education, U. P., or of an Indian University incorporated by any law for the time being in force.
- (ii) The Commercial Diploma Examination of the Allahabad University or of the Board of High School and Intermediate Education, U. P.
- (iii) The Intermediate Examination in Commerce of the Board of High School and Intermediate Education, United Provinces, or of the Central Board of Secondary Education, Ajmer.

Provided that the candidates who have passed the examinations mentioned in clauses (ii) and (iii) or any other examination conducted by any Indian University incorporated by any law for the time being in force, which may be recognised by the Executive Council as equivalent to any of the examinations mentioned in clauses (ii) and (iii) above shall be exempted from taking the First Year Bachelor of Commerce course.

The regular course extends over a period of three years and the examinations are conducted at the end of the second and third years.

M.Com.—The courses of study for the Master's degree in Commerce extend over a period of two years and there are two

examinations, *viz.*, the Previous Examination and the Final Examination and only those candidates who, after taking their B.Com. degree of the University or of an Indian University recognised for the purpose by the Executive Council, have completed a regular course of study in an affiliated College for one academic year, are admitted to the Previous Examination for the degree of Master of Commerce. The candidates who, after passing the Previous M.Com. Examination of the University, have completed a regular course of study for one academical year in an affiliated College, are admitted to the Final Examination for the degree of Master of Commerce.

Agriculture

B.Sc. (Ag.)—The courses for the B.Sc. (Ag.) degree extend over a period of two years, and examinations are conducted at the end of each year of the course. Admission to the B.Sc. (Ag.) Part I Examination is granted to those who, after passing the Intermediate Examination in Agriculture of the Board of High School and Intermediate Education, or any other examination in Agriculture recognised by the University as equivalent thereto, have attended a regular course of study in an affiliated college for one academical year. For admission to the B.Sc. (Ag.) Part II Examination, candidates are required to attend a further regular course of study for one year in an affiliated college, after passing the Part I examination.

M.Sc. (Ag.)—The courses of study for the Master's degree in Agriculture extend over a period of two years and there are two examinations *i.e.* the M.Sc. (Ag.). Previous and M.Sc. (Ag.) Final Examination. Only those candidates who, after obtaining the B.Sc. (Ag.) degree of the University, have completed a regular course of study for one academic year in an affiliated college recognised for this degree, are admitted to the Previous examination for the degree of Master of Science in Agriculture. For admission to the M.Sc. (Ag.) Final Examination, candidates have to attend a regular course of study for one more year after passing the M.Sc. (Ag.) Previous Examination. B.Sc. (Ag.)s of other Universities recognised by the Executive Council for the purpose may be admitted to the M.Sc. (Ag.) Previous Examination and thereafter to the M.Sc. (Ag.) Final Examination.

Medicine

The examination for the degree of M.B., B.S. consists of four examinations :

- (1) The First M.B., B.S. Examination ;
- (2) The Second M.B., B.S. Examination ;
- (3) The Final M.B., B.S. Examination (Part I)
- and
- (4) The Final M.B., B.S. Examination (Part II),

which are held twice a year ordinarily in March-April, and July, on such dates as the Executive Council from time to time determines.

A candidate, who after passing the Intermediate Examination of the Board of High School and Intermediate Education, U.P., or the Central Board of Secondary Education, Ajmer with Physics, Chemistry (including Organic Chemistry) and Biology, or of an Indian University incorporated by any law for the time being in force, with the same group of subjects as mentioned above, or any other examination recognised by the University as equivalent thereto, has attended a regular course of study in an affiliated college, for two academic years and has completed the age of 17 years at the time of admission or would complete this age within four months of his admission to the Medical College, shall be eligible for appearing at the First M.B., B.S. Examination.

A candidate who, after passing the First M.B., B.S. Examination of the University has attended a regular course of study in an affiliated college for one academic year, shall be eligible for appearing at the Second M.B., B.S. Examination.

A candidate who, after passing the First M.B., B.S. Examination, has for two years attended a regular course of study prescribed for the Final M.B., B.S. (Part I) and has passed Second M.B., B.S. Examination shall be eligible for appearing at the Final M.B., B.S. (Part I) Examination.

A candidate who, after passing the First M.B., B.S. Examination, has attended for three years a regular course of study prescribed for the Final M.B., B.S. (Part II) Examination and

who has passed the Second M.B., B.S. and Final M.B., B.S. (Part I) Examination shall be eligible for appearing at the Final M.B., B.S. (Part II) Examination.

M.D. and M.S.—Doctor of Medicine and Master of Surgery degrees are conferred after the acceptance of a thesis and an Examination (written, clinical, oral and practical). A candidate for the M.D. or M.S. degree must be an M.B., B.S. of the University and must have subsequent to graduation been engaged for three years in the practice of medical profession out of which one year must have been spent in hospitals as a houseman or clinical assistant and one year in the department of his special subject in the college hospital or institution recognised by the University for the purpose.

Engineering

B.Sc. (Engg.).—The courses of study for Bachelor of Science (Engineering) shall extend over a period of five years, the fifth year being devoted entirely to practical training or research work at places approved for the purpose by the Executive Council, on the recommendation of the Principal of an affiliated college.

At the end of each of the first four years there shall be an examination, *viz.* :—

At the end of the first year—

Bachelor of Science (Engineering) Previous, Part I.

At the end of the second year—

Bachelor of Science (Engineering) Previous, Part II.

At the end of the third year—

Bachelor of Science (Engineering) Final, Part I.

At the end of the fourth year—

Bachelor of Science (Engineering) Final, Part II.

A candidate, who, after passing the Intermediate Examination with Mathematics, Physics and Chemistry of the Board of High School and Intermediate Education, U. P., or Central Board of Secondary Education, Ajmer, or of an Indian University, incorporated by any law for the time being in force or any other Examination, recognised by the Executive Council as equivalent thereto, has attended a regular course of study in an affiliated college for one academical year, shall be eligible for

appearing at the Bachelor of Science (Engineering) Previous, Part I Examination.

A candidate who, after passing the Bachelor of Science (Engineering) Previous, Part I Examination of the University has attended a regular course of study in an affiliated college for one academical year, shall be eligible for appearing at the Bachelor of Science (Engineering) Previous, Part II Examination.

A candidate, who, after passing the Bachelor of Science (Engineering) Previous, Part II Examination of the University, has attended a regular course in a particular branch of study, in an affiliated College for one academical year, shall be eligible for appearing at the Bachelor of Science (Engineering) Final, Part I Examination in that branch of study.

A candidate, who, after passing the Bachelor of Science (Engineering) Final, Part I Examination of the University in particular branch of study, has attended a regular course of study in that branch of study in an affiliated college, for one academical year, shall be eligible for appearing at the Bachelor of Science (Engineering) Final, Part II Examination in that branch of study.

A candidate, who, after passing the Bachelor of Science (Engineering) Final, Part II Examination of the University in a prescribed branch of study, produces evidence to the satisfaction of the Executive Council, that he has successfully spent not less than 275 working days in practical or research work in workshops or institutions approved for the purpose by the Executive Council, on the recommendation of the Principal of an affiliated college shall be admitted to the degree of Bachelor of Science (Engineering), in that branch of study.

A candidate, who has taken the B.Sc. degree of the University in Mechanical Engineering or *vice versa*, a candidate who has taken the B.Sc. degree of the University in Electrical Engineering, may be admitted to the B.Sc. degree in Electrical Engineering or Mechanical Engineering provided he—

- (i) attends a regular course of study in an affiliated college of University for the B.Sc. (Engg.) Final Part II Examination in Electrical Engineering or Mechanical Engineering as the case may be.
- and (ii) is successful at the B.Sc. (Engg.) Final, Part II Examination in that branch of study.

Veterinary Science and Animal Husbandry

The Examination for the degree of Veterinary Science and Animal Husbandry consists of three Examinations :

- (1) The First B.V.Sc. and A.H. Examination ;
- (2) The Second B.V.Sc. and A.H. Examination ;
- (3) The Final B.V.Sc. and A.H. Examination,

which shall be held twice a year ordinarily in March/April and November on such dates as the Executive Council may from time to time determine.

A candidate, who, after passing the Intermediate Examination of the Board of High School and Intermediate Education, U. P., with Physics, Chemistry (including Organic Chemistry) and Biology, or of an Indian University or Board incorporated by any law for the time being in force, with the same group of subjects as mentioned above, or any other Examination recognised by the University as equivalent thereto, has attended a regular course of study in an affiliated college for two academic years, shall be eligible for appearing at the First B.V.Sc. and A.H. Examination.

A candidate, who, after passing the First B.V.Sc. and A.H. Examination of the University has attended a regular course of study in an affiliated college for one academic year shall be eligible for appearing at the Second B.V.Sc. and A.H. Examination.

A candidate, who, after passing the Second B.V.Sc. and A.H. Examination of the University, has attended a regular course of study in an affiliated college for one academic year, shall be eligible for appearing at the Final B.V.Sc. and A.H. Examination.

Subjects and Papers for the Examinations and Scale of Marks

Bachelor of Arts.—Candidates are examined in General English and any *three* of the following branches: (a) English Literature, (b) Latin, Greek, Hebrew, Arabic, Persian or Sanskrit, (c) Hindi, Urdu, Marathi, Gujarati, Bengali, French, German or Italian, (d) Mathematics, (e) Philosophy,

(f) Economics, (g) History, (h) Political Science, (i) Geography, (j) Indian Music, (k) Drawing and Painting, (l) Home Science, (m) Sociology, (n) Military Science, (o) Psychology, (p) Education and (q) Home Economics. The Examination in General English consists of two papers. Three papers are set in each of the other subjects except Indian Music and Military Science. The examination in Indian Music consists of one paper and one practical of 100 marks, while in Military Science it consists of two papers and one practical of 50 marks.

The minimum for pass in all subjects is 33 per cent. There are three divisions: Candidates are declared to have passed in the First division if they obtain 60 per cent or more of the aggregate, in the Second, if they obtain 45 per cent or more and in the Third if they obtain the minimum pass marks in each subject.

All candidates are required to pass in a Compulsory General Hindi Paper of 50 marks (the pass marks being, 13); provided that candidates who have passed the High School or Intermediate or Senior Cambridge Examination with Advanced Hindi or who offer Hindi as one of their optional subjects for the B.A. examination are exempted from appearing in this paper.

Candidates may also, at their option, take an additional paper on one of the vernaculars recognised by the University for the B.A. Examination.

Master of Arts.—A candidate may select *one* of the following subjects: (1) Languages: English, Sanskrit, Persian, Latin, Urdu, Hindi or Marathi, (2) Mental and Moral Science, (3) History, (4) Mathematics, (5) Economics, (6) Political Science, (7) Geography, (8) Diplomacy and International Affairs, (9) Sociology and (10) Ancient Indian History and Culture.

At the Previous Examination, there are *four* papers in Sanskrit, Persian, Hindi, Urdu, Marathi, Mathematics, Economics, Geography and Sociology and *three* papers in English Literature, Latin, History, Political Science, and Mental and Moral Science. For the Final Examination *four* papers are set in English Literature, Persian, Sanskrit, Hindi, Urdu, Marathi, Mathematics, Economics, Mental and Moral Science, Philosophy, History and Political Science and *three* papers in Latin. There is a *viva voce* Examination in English Literature and Modern European Languages.

The minimum pass marks in all the subjects are 36 per cent of the aggregate marks. Candidates who obtain 60 per cent or more of the aggregate are placed in the First Division and those who obtain 48 per cent or more in the Second Division.

Bachelor of Science.—Candidates are examined in any three of the following subjects :

Physics, Chemistry, Mathematics, Botany, Zoology, Economics, Military Science, Geology, Pharmaceutical Chemistry and Statistics :

Provided that no candidate shall be allowed to take any subject except Economics, Military Science, Geology, Pharmaceutical Chemistry and Statistics, unless he has passed an examination in the corresponding subject in the Intermediate or any other examination recognised as qualifying for admission to a degree course.

Provided further that the combination of Economics, Mathematics and Military Science shall not be allowed.

There are two papers and a practical examination in each subject except Mathematics and Economics in which three papers are set.

A candidate may, at his option, take General English or General Hindi paper as an extra subject. There are two papers in General English and one paper in General Hindi.

The minimum for a pass in all subjects is 33 per cent. There are three divisions: The First Division consists of those who obtain 60 per cent or more of the aggregate, the Second of those who obtain 45 per cent or more, and the Third of those who obtain the minimum pass marks in each subject.

Master of Science.—Candidates must offer one of the following subjects:—(a) Mathematics, (b) Physics, (c) Chemistry, (d) Botany and (e) Zoology. At the Previous Examination there are three papers and a practical examination in Physics, Botany, Zoology and Chemistry. In Mathematics the examination consists of four papers. At the Final examination four papers are set in Mathematics, three papers in Zoology and Physics, and two papers and a thesis in Chemistry and Botany with a practical examination in each subject except Mathematics.

The minimum for a pass is 36 per cent in each subject; 60 per cent or more of the aggregate places a candidate in the First Class and 48 per cent or more, in the Second Class.

Professional Examinations

Bachelor of Teaching.—Every candidate shall be required to show a competent knowledge of the following:—

- (1) Principles and Psychology of Education
- (2) School Organisation and Hygiene
- (3) Methods of teaching: (a) General Methods; (b) Methods of Teaching School subjects.
- (4) History of Education
- (5) Practical skill in Teaching

The minimum for a pass is 36 per cent with a minimum of 25 per cent in each paper; 60 per cent or more of the aggregate places a candidate in the First Division and 48 per cent or more, in the Second Division.

Bachelor of Science in Pharmaceutical Chemistry.—The following are the subjects of study: (1) Pharmaceutical Chemistry, (2) *Pharmacy*, (3) *Pharmacognosy*, and (4) *Elementary Human Physiology and Pharmacodynamics*.

The examination is conducted by means of papers, but candidates are required to undergo a practical examination in each subject and to pass separately in that examination.

The minimum for a pass in each subject is 33 per cent. There are three divisions: The First Division consists of those who obtain 60 per cent or more of the aggregate marks, the Second of those who obtain 45 per cent or more and the Third of those who obtain the minimum pass marks in each subject.

Candidates may, at their option, also take General English or Military Science, or both as extra subjects.

Bachelor of Laws.—The subjects of the Previous Examination are: (1) Roman Law, (2) The Law of Contracts, (3) The Law of Easements and Torts, (4) The Law of Evidence

(5) Criminal Law and Procedure, (6) Constitutional Law, and (7) Jurisprudence. The following are the subjects for the Final Examination: (i) Civil Procedure, (ii) The Law relating to the Land Tenures, Rent and Revenue in Uttar Pradesh or Madhya Pradesh, (iii) Hindu Law, (iv) Mohammedan Law, (v) The Law relating to Transfer of Property, (vi) Equity with special reference to the Law of Trusts and Specific Relief, and (vii) Company Law and Income-tax Law.

The examination is conducted by papers. The minimum for a pass is 48 per cent of the aggregate with a minimum of 36 per cent in each paper. Those who obtain 60 per cent of the aggregate are placed in the First Class and those obtaining 48 per cent in the Second Class.

Master of Laws.—Candidates for the degree of Master of Laws shall be examined in the following compulsory subjects, with such combination for the two optional subjects as an intending candidate adopts:—

Compulsory Subjects

- I. Jurisprudence and Principles of Legislation
- II. Constitutional Law, British and Indian
- III. Roman Law
- IV. Either (a) Hindu Law, or (b) Mohammedan Law

Optional Subjects

Only two out of these may be taken:—

- I. Hindu or Mohammedan Law, whichever is not chosen as a compulsory subject
- II. The Law of Contracts
- III. Transfer of Immovable Property and Easements
- IV. Equity
- V. International Law, Public and Private
- VI. Wills and Administrations

There shall be assigned to each paper 100 marks. Candidates who obtain not less than 50 per cent of the marks assigned to each subject and not less than 60 per cent of the aggregate shall be declared to have passed the examination. There shall be no Class.

Bachelor of Commerce (Part I and Part II).—The following subjects are to be studied in the first year class: (1) English, (2) Elements of Economics, (3) Elements of Currency and Banking, (4) Book Keeping and Accountancy, (5) Business Methods, and (6) Economic and Commercial Geography. The compulsory subjects to be studied in the B. Com. Part I and Part II classes are:

Part I.—(1) English Essay, (2) Hindi Essay, (3) Business Organisation, (4) Commercial Law, (5) Accountancy, (6) Principles of Economics, (7) Currency and Banking, (8) Trade and Transport.

Part II.—(1) English Text, (2) Hindi Essay, (3) Industrial Organisation, (4) Statistics, (5) Public Finance, (6) Economic Development in India.

Any of the following subjects may be offered as an optional subject:—

(a) Advanced Accountancy and Auditing, (b) Advanced Banking, (c) Study of India's Trade with South Asiatic Countries, South Africa and Japan, (d) Economic and Commercial Geography.

The minimum for a pass is 36 per cent in each subject or group of subjects. Marks of Part I and Part II Examinations count together for a place on the pass list of Part II Examination. Candidates who secure 60 per cent or more of the aggregate are placed in the First Division, those who get 48 per cent or more, in the Second Division.

All candidates are required to pass in a Compulsory General Hindi Paper of 50 marks (the pass marks being 13), provided that candidates who have passed the High School or Intermediate or Senior Cambridge Examination with Advanced Hindi; are exempted from appearing in this paper.

Master of Commerce.—Out of the following papers, candidates shall be required to take any *four* papers in the Previous and any other *four* papers in the Final Examination: (1) Corporation

Finance, (2) The Organisation of Industries, (3) The Organisation of Markets, (4) Banking and Foreign Exchange, (5) International Trade and Fiscal Policy, (6) Transport, (7) Law and Practice of Income-Tax, (8) Specialised Accountancy, (9) Principles and Practice of Auditing, (10) Secretarial work, (11) Statistics, (12) Labour Problems, (13) Co-operation, (14) Rural Economics, (15) Public Finance, (16) Economic and Commercial Geography, (17) Stock Exchange and (18) Insurance.

The subject matter of each paper is to be studied with special reference to India.

Bachelor of Science in Agriculture (Part I and Part II).—Candidates are required to pass in Agriculture, Dairying and Animal Husbandry, Agricultural Chemistry, Agricultural Economics, Agricultural Botany, Horticulture, Plant Pathology, Entomology, Agricultural Zoology with Parasitology and Veterinary Science.

There are five papers and four practical examinations in Part I Examination and six papers and six practical examinations in Part II Examination.

The minimum for a pass is 33 per cent in each subject. A candidate is required to pass in the total of the papers, as well as in the practical examination in each subject. There are three divisions: The First Division consists of those who obtain 60 per cent or more of the aggregate, the Second of those who obtain 45 per cent or more, and the Third of those who obtain minimum pass marks in each subject.

Master of Science in Agriculture.—The examination for the degree of Master of Science in Agriculture shall consist of two Examinations, Previous and Final.

A candidate is required to pass in the written and the practical examinations separately. There are three papers and one practical in each paper except in Paper III of each subject for the Final Examination where there is a choice for a Thesis.

The subject for the Previous and Final examinations shall be one of the following:—

- (1) Crop Husbandry

378
HAN



- (2) Agricultural Economics and Estate Management
- (3) Animal Husbandry and Dairying
- (4) Agricultural Chemistry
- (5) Plant Pathology
- (6) Horticulture
- (7) Agricultural Botany
- (8) Agricultural Zoology and Entomology

There are three divisions.—First Division 60 per cent, Second Division 48 per cent, and Third Division 36 per cent.

Bachelor of Medicine and Bachelor of Surgery.—For the First M.B., B.S. Examination, candidates are required to pass in (1) Anatomy and (2) Physiology and Biochemistry; for the Second M.B., B.S. Examination in Pharmacology and Materia Medica, for the Final M.B., B.S. (Part I) Examination (1) Pathology and Bacteriology, (2) Hygiene and Public Health, (3) Medical Jurisprudence and Toxicology, and for the Final M.B., B.S. (Part II) Examination (1) Medicine, (2) Surgery, (3) Obstetrics and Gynaecology and (4) Ophthalmology.

Minimum pass marks in each subject are 40 per cent in theory and 50 per cent in practicals with a minimum of 50 per cent in the aggregate.

Candidates obtaining 75 per cent or more of the marks in any one subject in the first attempt shall be deemed to have obtained distinction in that subject.

M.D. and M.S.—A candidate has to take *one* of the following subjects with three papers and a practical in each :—

For M.D.—1. Medicine, 2. Pathology, 3. Pharmacology and 4. Physiology.

For M.S.—1. Surgery, 2. Ophthalmology, 3. Obstetrics and Gynaecology and 4. Anatomy.

No marks will be assigned. The fitness of a candidate for the M. D. or M. S. degree will be determined by the examiners.

Bachelor of Science in Engineering.—The examination shall be conducted by means of written papers and practical and oral tests and shall also include certified sessional work done in the college, laboratories and workshops. Every candidate for the Bachelor of Science (Engineering) Previous, Part I Examination shall be required to show a competent knowledge of:—

- (1) Mathematics, Pure and Applied
- (2) Applied Chemistry
- (3) Applied Physics
- (4) Applied Mechanics
- (5) Surveying
- (6) Building Materials and Building Construction
- (7) Machine Drawing
- (8) Practical Geometry and Graphic Statics

Every candidate for the Bachelor of Science (Engineering) Previous, Part II Examination shall be required to show a competent knowledge of:—

- (1) Mathematics, Pure and Applied
- (2) Applied Mechanics
- (3) Heat Engines
- (4) Electrical Engineering
- (5) Machine Drawing
- (6) Graphics and Structural Drawing

There shall be the following branches of study for the Bachelor of Science (Engineering) Final, Part I and Final, Part II Examination :—

A. Mechanical Engineering ;

B. Electrical Engineering ;

and a candidate for the Bachelor of Science (Engineering) degree shall be required to specialise only in one such branch of study at a time.

Every candidate for the Bachelor of Science (Engineering) Final, Part I Examination in Mechanical Engineering shall be required to show a competent knowledge of:

- (1) Strength and Elasticity of Materials
- (2) Theory of Structures
- (3) Theory of Machines
- (4) Hydraulics and Hydraulic Machinery
- (5) Heat Engines
- (6) Mechanical Engineering Design
- (7) Electrical Engineering

Every candidate for the Bachelor of Science (Engineering) Final, Part I Examination in Electrical Engineering shall be required to show a competent knowledge of:

- (1) Strength and Elasticity of Materials
- (2) Theory of Structures
- (3) Theory of Machines
- (4) Hydraulics and Hydraulic Machinery
- (5) Heat Engines
- (6) Electrical Engineering
- (7) Theory and Design of Electrical Machinery

Every candidate for the Bachelor of Science (Engineering) Final, Part II Examination in Mechanical Engineering shall be required to show a competent knowledge of:—

- (1) Strength and Elasticity of Materials

- (2) Theory of Structures
- (3) Hydraulics and Water Power Engineering
- (4) Theory and Design of Machinery
- (5) Heat Engines
- (6) Workshop Technology and Engineering Production
- (7) Industrial Organisation and Workshop Management

Every candidate for the Bachelor of Science (Engineering) Final, Part II Examination in Electrical Engineering shall be required to show a competent knowledge of:—

- (1) Electrical Communications or Utilization of Electric Power with Traction
- (2) Hydraulics and Water Power Engineering
- (3) Generation, Transmission and Distribution of Electric Power
- (4) Theory and Design of Electrical Machinery
- (5) Workshop Technology and Engineering Production
- (6) Industrial Organisation and Workshop Management

For a pass in the Previous, Part I Examination a candidate must obtain at least 30 per cent in each paper, 40 per cent in each group of written papers, 60 per cent in each practical, and 50 per cent (900 marks) of the Grand Total. If a candidate satisfies all other conditions, but obtains less than 60 per cent in one subject only of the practicals, he may be allowed to pass ; provided he obtains at least 50 per cent in that practical and at least 65 per cent (390 marks) in all the practicals taken together.

For a pass in the Previous, Part II Examination a candidate must obtain at least 30 per cent in each paper, 40 per cent in each group of written papers, 60 per cent in each practical, and 50 per cent, (900 marks) of the Grand Total. If a candidate satisfies all other conditions, but obtains less than 60 per cent in one subject only of the practicals, he may be allowed to pass ; provided he obtains at least 50 per cent in that practical and at

least 65 per cent (390 marks) in all the practicals taken together.

For a pass in the Final, Part I Examination a candidate must obtain at least 30 per cent in each paper, 40 per cent in each group of written papers, 60 per cent in each practical and 50 per cent (750 marks) of the Grand Total. If a candidate satisfies all other conditions, but obtains less than 60 per cent in one subject only of the practicals, he may be allowed to pass : provided he obtains at least 50 per cent in that practical and at least 65 per cent (325 marks) in all the practicals taken together.

For a pass in the Final, Part II Examination a candidate must obtain at least 30 per cent in each paper, 40 per cent (320 marks) in the total of written papers, 60 per cent in each practical ; and 50 per cent (750 marks) of the Grand Total. If a candidate satisfies all other conditions, but obtains less than 60 per cent in one subject only of the practicals, he may be allowed to pass; provided he obtains at least 50 per cent in that practical and not less than 65 per cent (325 marks) in all the practicals taken together.

For purposes of classification for the award of the degree :—

- (a) 20 per cent of the aggregate marks for the B.Sc. (Engineering) Previous, Part I Examination (*i.e.*, 360 marks);
 - (b) 35 per cent of the aggregate marks for the B.Sc. (Engineering) Previous, Part II Examination (*i.e.*, 635 marks);
 - (c) 50 per cent of the aggregate marks for the B.Sc. (Engineering) Final, Part I Examination (*i.e.*, 750 marks);
- and (d) the maximum marks for the B.Sc. (Engineering) Final, Part II Examination (*i.e.*, 500 marks) shall be taken into account, and a candidate shall be awarded—
- (1) a degree with Honours, if he secures 80 per cent (or 2592 marks) of the grand total (*i.e.*, 3240 marks).
 - (2) a First class degree, if he secures 65 per cent (or 2106 marks) of the grand total (*i.e.*, 3240 marks).

- (3) a Second class degree, if he secures 50 per cent (or 1620 marks) of the grand total (*i.e.*, 3240 marks).

Bachelor of Veterinary Science and Animal Husbandry.—For the first B.V.Sc. & A.H. Examination—Candidates are required to pass 1. Anatomy, 2. Physiology and 3. Animal Husbandry Part I and Part II (with one paper and an oral and practical examination in each).

For the Second B.V.Sc. & A.H. Examination in 1. Parasitology, 2. *Materia Medica*, 3. Pathology, and Animal Husbandry Part III (with one paper and an oral and practical examination in each).

For the Third B.V.Sc. Examination in Animal Husbandry Part III, Pathology Part I, and Medicine Part I (with one paper and an oral and practical examination in each).

For the final B.V.Sc. and A.H. Examination in 1. Animal Husbandry Part IV (with one paper oral and practical), 2. Medicine. 3. Surgery (with one paper and an oral) and 4. Agricultural and Live-stock Economics and Statistics (with one paper only).

There will be three divisions :—

1st Division	..	75 per cent or more of aggregate
2nd Division	..	60 per cent or more of aggregate
3rd Division	..	All the rest if they obtain 45 per cent or more of the aggregate

For all the examinations, candidates must obtain for a pass at least 45 per cent of the aggregate marks separately in written and oral, practical or clinical examination in each subject.

Conditions of Re-Admission to University Examinations

A candidate who has attended a regular course of study prescribed for an examination in an affiliated college of the University and who has failed once, or who, in the case of Final M.A. or M.Sc. or M.Com. or LL.B. or M.Sc. (Ag.) or First or Second or Final M.B., B.S. (Part I or II) Examination has not been able to appear at the said examination on account of serious illness, may be allowed by the Executive Council to appear again at a subsequent examination without attending

any further regular course of study ; provided the Principal of the affiliated college in which he last studied, recommends his application, which in the case of candidate's serious illness, shall be accompanied by a Medical Certificate.

A candidate who has passed in theory but has failed in *practice at the B.T. Examination* may be allowed by the *Executive Council* to appear, without attending any further course of study, in any subsequent examination, in practice held within a period of three years from the date of his first appearance at the examination ; provided he continued to be a teacher in a recognised school.

A candidate who has passed in practice but has failed in theory at the B.T. Examination may be allowed by the Executive Council to appear, without attending any further course of study, in any subsequent examination, in theory held within a period of three years from the date of his first appearance at the examination.

A candidate who has failed at the B.Sc. (Engg.) Final (Part II) Examination may be allowed to appear as an ex-student at any subsequent examination within a period of three years after his first appearance at the examination without attending a regular course of study.

There shall be a Supplementary examination in July of candidates who fail in one subject only at the immediately preceding B.A., B.Sc., B.Com., B.Sc. (Ag.) or B.Sc. (Engg.) Previous or Final (Part I or Part II) Examination and such candidates as may desire to take the supplementary examination may be provisionally permitted at their own risk to join the next higher class in an affiliated college of the University and count attendance in case they are successful at the supplementary examination. Provided that for an examination in the Faculty of Engineering, each Group of written papers or the practical or sessional work in any subject, shall be counted as one subject for purposes of this Statute and only such students as have obtained 55 per cent of the aggregate number of marks for the examination and not less than 25 per cent of the marks in the subject in which they have failed shall be admitted to the supplementary examination. Candidates shall be declared to have passed the examination if they secure minimum pass marks prescribed for a pass in the subject in which they appear at the supplementary examination. No division shall, however, be awarded to such candidates,

In the case of subjects in which there is also practical test, candidates shall be required to appear in the written papers only, if they passed at the main examination in practicals and in practicals only if they passed in the written papers. Candidates who failed both in written papers and practicals shall be examined in both the parts of the subject; provided that candidates failing in any of the B.V.Sc. and A.H. Examinations either in theory or practical or both shall have to appear and pass in both the theory and practical.

There shall be a supplementary examination in July for LL.B. (Previous and Final) candidates who fail at the immediately preceding examination in one paper only obtaining not less than 30 per cent marks in that paper and 48 per cent or more marks in the aggregate, or who pass in all papers but fail in the aggregate only by not more than ten marks. Candidates failing in one paper only shall be required to appear in the paper in which they failed and those who failed in the aggregate in those papers only in which they secured less than 60 per cent marks. Candidates shall be declared to have passed the examination if they secure at the supplementary examination 36 per cent marks in the paper in which they failed, or 36 per cent marks in each paper and 48 per cent marks in the aggregate, if they failed in the aggregate only. No division shall be assigned to such candidates. Such candidates as may desire to take the supplementary Examination in LL.B. (Previous) Examination may be provisionally permitted at their own risk to join the LL.B. Final class in an affiliated college of the University and count attendance in case they are successful at the supplementary examination.

A candidate who desires to enter for an examination under this Statute must submit his application direct to the Registrar in a prescribed form so as to reach him not later than the 1st of July each year. The application shall be accompanied by the full fee for examination and the marks fee of Rs. 2.

Admission of Teachers, Inspectors in the Educational Department and Women Candidates to the Examinations of the University

A teacher in an approved educational institution or an Inspecting Officer in the Departments of Education in U. P. or Rajasthan, or Madhya Bharat, Bhopal, Vindhya Pradesh or Ajmer, is also eligible for admission to University examinations if he has served continuously as a teacher or an Inspector for

one academic year immediately preceding the examination and if he fulfils certain other special conditions.

Teachers can also appear privately at the B.Sc. (Ag.) and M.Sc. (Ag.) Examinations after putting in one academic year's service.

Women candidates residing within the territorial limits of the University are allowed to appear at the examinations of the University except the B.T., B.Sc. in Pharmaceutical Chemistry, LL.B., B.Sc. (Ag.), M.Sc. (Ag.), M.B., B.S., B.Sc. (Engg.), B.V.Sc. & A.H. Examinations, without attending a regular course of study in an affiliated college.

Number of Students in the University

The number of students in the degree and post-graduate classes in the affiliated colleges of the University during the session 1950-51 was as follows:—

Arts and Science classes	..	..	..	17,712
Law classes	..	..	..	2,023
Commerce classes	..	..	..	3,386
Agriculture classes	..	..	..	786
Medicine classes	..	..	..	879
V.Sc. & A.H. classes	..	..	..	174
Engineering classes	..	..	..	116

Residence and Health

The students of the University are required to live either in a hostel or with their parents or guardians. The cost of living and the conditions of residence are different in different places, the details of which will be found in the prospectuses of the different colleges issued by the colleges every year.

The Board of Inspection is responsible for the periodical inspection of the hostels and every college is required to satisfy the Executive Council that the arrangements for the residence of students are satisfactory and that provision is made for the health and recreation of students.

National Cadet Corps

The University Officers' Training Corps, I.T.F. has been disbanded from July, 1946 and in its place the National Cadet Corps is raised with a separate Directorate of its own under the Defence Ministry of India, New Delhi, by an Act of the Government of India called the National Cadet Corps Act, 1948. The distribution of this corps in the University is as follows :—

- 3rd U. P. Bn. N. C. C., Agra—2 Companies—Agra, St. John's and B. R. Colleges.
- 4th U. P. Bn. N. C. C., Kanpur—2 Companies—D. A. V., Christ Church, V.S. S.D. and Agriculture Colleges.
- 5th U. P. Bn. N.C.C., Bareilly—2 Companies—"A" Coy., Bareilly College, and "B" Coy.—D.S. College and Aligarh University, Aligarh.
- Meerut Independent Company—1 Company—Meerut College.

Scholarships and Medals

There is a large number of scholarships and freeships and medals awarded by each of the affiliated colleges of the University to its own students, the details of which can be had from the prospectuses of the respective colleges.

Besides the scholarships awarded by the affiliated colleges, the University has instituted ten research scholarships of Rs. 75 per mensem each tenable for twelve months in affiliated college and the following post-graduate scholarships of Rs. 30 per mensem each to be awarded annually (each scholarship being tenable for twenty months) for precedence in the First or Second Division on the results of the degree examination concerned :—

- (1) Ten M.A. Scholarships on the results of the B.A. Examination.
- (2) Ten M.Sc. Scholarships on the results of the B.Sc. Examination.
- (3) Five M.Com. Scholarships on the results of the B.Com. Examination.
- (4) Five M.Sc. (Ag.) Scholarships on the results of the B.Sc. (Ag.) Examination.

In addition to these scholarships there is also one endowed scholarship of Rs. 13 p. m. tenable for 22 months. The Scholarship is awarded to a poor and deserving student who joins the University for the Bachelor's degree in any of the Faculties out of the interest of the donation of Rs. 4,607-2-6 bequeathed by the late Mr. Govind Das Gupta, a clerk in the Loco and Carriage Department of the B.B. & C.I. Railway, Ajmer, and is known as "Govind Das Gupta Scholarship."

The University has got fourteen endowed medals at present :—

1. *T.C. Jones Gold Medal* endowed by the Agra College Staff Club in memory of Mr. T.C. Jones, the late Principal of the Agra College, to be awarded annually at the time of Convocation to the student who stands first in English in the B.A. Examination of the University.

2. *Krishna Kumari Devi Gold Medal* endowed by Dr. Ganesh Prasad in memory of his daughter Krishna Kumari Devi to be awarded to the candidate in the Faculties of Arts and Science who obtains the highest percentage of marks in the Final Examination for the degree.

3. *Krishna Kumari Devi Mathematics Gold Medal* endowed by Dr. Ganesh Prasad in memory of his daughter to be awarded annually to that candidate who obtains the highest percentage of marks in the Final Examination for the Master's degree in Mathematics; provided that he secures at least 60 per cent of the marks in the aggregate.

4. *Seshadri Gold Medal* endowed by Mr. P. Seshadri, M.A., O.B.E., Principal, Government College, Ajmer, to be awarded annually to the candidate who obtains the highest percentage of marks in English Literature in the Final M.A. Examination.

5. *Shrimati Umang Lakshmi Kanti Lal Pandya Gold Medal* endowed by Dr. K. C. Pandya, Professor of Chemistry, St. John's College, Agra, in memory of his wife Shrimati Umang Lakshmi to be awarded annually to the candidate who passes the B.Sc. Examination with the highest marks in Chemistry.

6. *Azizuddin Malcolm Hailey Gold Medal* endowed by K. B. Kazi Sir Azizuddin Ahmad, Dewan, Datia State, to be awarded annually to the candidate who obtains the highest percentage of marks either in Sanskrit or in Persian (in alternate years) in the B.A. Examination.

7. *Nitkishore Mehra-Durrant-Haythornthwaite Silver Medal* endowed by Rai Sahib Nitkishore Mehra, B.A., LL.B., Advocate, Agra, to be awarded annually to that candidate who obtains the highest percentage of marks in Criminal Law at the LL.B. (Previous) Examination.

8. *Shyama Charan Gold Medal* endowed by (Mrs.) Prem Mohini Shyama Charan, in memory of her late husband, Professor Shyama Charan of Agra College, Agra, to be awarded annually to the candidate who obtains the highest number of marks in Mathematics, at the B.A. or B.Sc. Examination.

9. *Shrimati Dhan Devi Kapoor Silver Medal* endowed by B. Chhail Behari Kapoor, Advocate, Bareilly, in memory of his wife to be awarded annually to the candidate who obtains the highest (but not less than 1st class) marks in Hindi at the B.A. Examination.

10. *Sukh Nandan Gupta Silver Medal* endowed by Mr. Sukh Nandan Gupta, B.Com., G.D.A., R.A.K., Registered Accountant, Agra, to be awarded annually to the student getting the highest percentage of marks in Accountancy and Auditing at the B.Com. Examination.

11. *Buckley Gold Medal* endowed by the members of the staff of Medical College, Agra, to be awarded annually to the best graduate who obtains the highest number of marks in the final M.B.,B.S. (Part II) Examination of the University in April. The recipient should pass in five years without failing in any University Examination of the faculty of Medicine previously.

12. *Rameshwar Prasad Bagla Gold Medal* endowed by Messrs. Gangadhar Baijnath, Bankers and Mill Owners, Kanpur, to be awarded each year to the student standing first in the LL.B. (Final) Examination of the University.

13. *Kaushla Nandan Sahay Silver Medal* endowed by Mrs. S. Rai, Member, Agra University Senate, in memory of her revered father, the late Dr. Kaushla Nandan Sahay, B.A.,M.B., of Bareilly to be awarded annually to the candidate who obtains the highest number of marks in Ophthalmology in the M.B., B.S. Examination.

14. *Munshi Ram Sharma Gold Medal* endowed by Dr. Munshi Ram Sharma, Professor of Hindi, D. A. V. College, Kanpur, to be awarded annually to the candidate who obtains the

highest number of marks at the M.A. examination in Hindi.

Examinations held in April, 1951.

The following Examinations of the University were held in March-April, 1951 :—

Examination	No. of candidates appearing
B.A.	5,491
M.A. (Previous)	2,422
M.A. (Final)	1,677
B.Sc.	1,567
M.Sc. (Previous)	390
M.Sc. (Final)	198
LL.B. (Previous)	1,434
LL.B. (Final)	570
B.Com.	1,135
M.Com. (Previous)	394
M.Com. (Final)	309
B.Sc. (Ag.)	332
M.Sc. (Ag.)	122
First M.B., B.S.	169
Second M.B., B.S.	103
M.B., B.S. Final Part I.	119
M.B., B.S. Final Part II	106
First B.V.Sc. & A.H.	29
Second B.V.Sc. & A.H.	37
Final B.V.Sc. & A.H.	12
B.T.	58
B.Sc. (Engg.) Part I	
Total	16,674

Budget: Provident Fund

The year under report, 1951-52, commenced with a credit balance of Rs. 98,712-3-10, which included a sum of Rs. 72,435 due to contractors and other for incomplete works.

The income during the year was Rs. 12,86,698-2-5, including Rs. 10,69,203-2-0 from Endowment, Permission Examination and marks fees ; Rs. 31,800-13-11 on account of contributions from non-U.P. colleges and Rs. 79,686-5-0 on account of Government grant (block grant Rs. 46,925 and special grant Rs. 32,761-5-0—Rs. 31,000 for bursaries and book grants and Rs. 1,761-5-0 for Research Scholars from Union Government. The Expenditure during the year Rs. 12,61,090-12-2. The year thus closed with a credit balance of Rs. 1,24,379-10-1. In addition to this, University had :—

- (i) Its General Reserve Fund (including Gwalior Durbar Conditional Donation of Rs. 15,000) 4 per cent and 3 per cent G. P. notes of the face value of Rs. 1,48,000.
- (ii) A sum of Rs. 3,39,177-6-9 in the Library Reserve :—
 - (a) Rs. 3,10,711 in $1\frac{1}{2}$ per cent Fixed Deposits ; (b) Rs. 25,000 in 3 per cent G. P. Notes ; (c) Rs. 3,466-6-9 in S. B. Account with the Imperial Bank of India, Agra.
- (iii) A sum of Rs. 550 held in deposit by the Agra Electric Supply Co. Ltd., Agra (Rs. 500) and Municipal Board, Agra (Rs. 50) as Security deposits.
- (iv) Rs. 550 in the Imprest Accounts, Rs. 500 with the Registrar and Rs 50 with the Vice-Chancellor.
- (v) A sum of Rs. 20,000 in Fixed Deposit with Imperial Bank of India, Agra in Teaching Department Fund.
- (vi) A sum of Rs. 50,000 placed with Kapur Printing Press, Proprietor, Agra University Press, according to the terms of the contract on 6 per cent per annum interest.
- (vii) Rs. 30,710-15-0 due from various institutions.

The University has a Provident Fund to which every servant of the University is compelled to subscribe at the rate of 8 per cent. of his salary per month with option to subscribe upto $15\frac{7}{8}$ per cent at the request of the subscriber, the University contributing at the rate of 12 per cent in the case of subscribers drawing a salary of Rs. 500 or less, 10 per cent. in the case of subscribers drawing a salary of more than Rs. 500 but not

exceeding Rs. 1,000 and 8 per cent in the case of subscribers drawing a salary of over Rs.1,000.

Recognition of Degrees of this University by Foreign Universities and other bodies

(A)—Foreign Universities

1. *Cambridge University*.—The Cambridge University has approved the Agra University for the purpose of exemption from the Previous Examination by Indian certificates ; and a B.A. or B.Sc. of the Agra University who has secured a first or a second division at the examination can be exempted from the Previous Examination of the Cambridge University, provided that he has passed the B.A. or B.Sc. Examination with English and (a) Arabic, Persian, or Sanskrit, or (b) Mathematics or Science. (*vide* letter No. H. 172476 dated May 29, 1928, from the Registrar of the University of Cambridge.)
2. Further the University of Cambridge recognised Agra University as an associate institution. (*Vide* letter No. H/3/1671 of 27th January, 1934.)
3. *Oxford University*.—The B.A. and B.Sc. Degrees of the Agra University have been approved by the Hebdomadal Council of the University of Oxford for the purpose of Statute Title VI, Section I, class 2 H ; and a B.A. or B.Sc. of the Agra University is qualified for exemption from Responsions, provided he produces evidence that his course at the Agra University included the study of English and of one of the following languages, *viz.*, Latin, Greek, French, German, Sanskrit, Arabic and Persian. (*Vide* letter from the Registrar, University of Oxford dated October 16, 1928.)
4. *London University*.—The Agra University has been added to the schedule of Universities, whose graduates are eligible under Statute 116 for exemption from the Matriculation Examination of London University. (*Vide* letter No. 2235, dated October 25, 1928 from the External Registrar, University of London.)
5. *University of Wales*.—The University of Wales has decided that the Agra University be recognised as from October 1933 for the purpose of the Matriculation of Agra University students in the University of Wales, and for their admission to candidature for post-graduate degree or diploma under the

several Regulations approved by the Court of the University. (*Vide* letter No. E S. 237-59 of 19th December 1933, from the High Commissioner for India.)

6. *University of Dublin*.—The Board and Council of Trinity College, Dublin, have recognised the Agra University for purpose of Admission to their course. (*Vide* letter dated 15th November 1934.)

7. *Institute of Chartered Accountants, London*.—The B.Com. Degree of the Agra University has been approved by the Council of the Institute for purposes of exemption from the preliminary Examination. (*Vide* letter dated February 6, 1929, from the Assistant Secretary of the Institute.)

8. *Scottish Universities Entrance Board*.—The Board have placed the Agra University on their list of approved Universities, *i.e.*, the holder of a degree granted by the Agra University will be granted the Certificate of the fitness by the Board. (*Vide* letter No. E. S. 237-59 dated October 9, 1930 from the High Commissioner for India.)

9. *Council of Legal Education in England, London*.—The Agra University has been added to the list of Universities approved by the Council and the University's degree examinations will qualify for admission to any one of the four Inns of Court. (*Vide* letter No. 5862, dated January 15, 1933, from the Secretary of the Council.)

(B)—High and Chief Courts in India.

1. The High Court of Judicature at Allahabad has recognized the Agra University among the Universities whose Law graduates are eligible for enrolment as vakils and pleaders of that Court. (*Vide* letter No. 4462-45, dated June 25, 1928, from the Registrar, High Court of Judicature at Allahabad.)

2. The Chief Court of Oudh, Lucknow, has approved the degrees conferred by the Agra University to its Law graduates for purposes of legal practice in Oudh. (*Vide* letter No. 2080/XIV, 2-21, dated August 2, 1928, from the Registrar, Chief Court of Oudh, Lucknow.)

3. The High Court of Judicature at Patna has extended the privilege of admission as pleaders for practice in the Courts

subordinate to the Patna High Court to Law graduates of the Agra University. (*Vide* letter No. 5062-IX-14-28, dated November 19, 1928, from the Registrar, High Court of Judicature at Patna.)

4. The High Court of Judicature at Lahore, the Judicial Commissioner's Courts at Nagpur and Delhi and the Chief Commissioner's Courts in Ajmer-Merwara recognise the LL.B. Degrees of all Indian Universities incorporated by an Act of the Legislature.

Scale of Examination and Enrolment Fees

(a) For Admission to Examinations

	Rs.
1. B.A.	35
2. M.A. (Previous)	25
3. M.A. (Final)	35
4. Master of Arts (with thesis)	50
5. B.Sc.	35
6. M.Sc. (Previous)	25
7. M.Sc. (Final)	35
8. Masters of Science (with thesis)	50
9. Ph.D.	250
10. D.Litt. D.Sc., or LL.D.	300
11. LL.B. (Previous)	25
12. LL.B. (Final)	45
13. LL.M.	150
14. B.Com. Part I	25
15. B.Com. Part II	35
16. M.Com. (Previous)	25
17. M.Com. (Final)	35
18. Master of Commerce (with thesis)	50
19. B.Sc. (Ag.) Part I	25
20. B.Sc. (Ag.) Part II	35

	Rs.
21. M.Sc. (Ag.) (Previous)	35
22. M.Sc. (Ag.) (Final)	45
23. M.Sc. (Ag.) (with thesis)	60
24. B.T.	55
25. First M.B., B.S.	30
26. Second M.B., B.S.	20
27. Final M.B., B.S., Part I	45
28. Final M.B., B.S., Part II	55
29. Doctor of Medicine	300
30. Master of Surgery	300
31. First B.V.Sc. and A.H. Examination	35
32. Second B.V.Sc. and A.H. Examination	35
33. Final B.V.Sc. and A.H. Examination	55
34. Bachelor of Science (Engineering), Previous, Part I	55
35. Bachelor of Science (Engineering), Previous Part II	55
36. Bachelor of Science (Engineering), Final, Part I	65
37. Bachelor of Science (Engineering), Final, Part II	75
38. For appearing in one Subject at the B.A., B.Sc. or B.Com. Examination or at a Certi- ficate Examination	20
39. Re-examination fee in each subject in M.B., B.S. or B.V.Sc. and A.H. (Subject to a maximum of examination fee prescribed for the examination)	20
40. Supplementary, B.A., B.Sc., B.Com., B.Sc. (Ag.) or B.V.Sc. and A.H. Examination	35
41. Supplementary LL.B. Previous Examination	25
42. Supplementary LL.B. Final Examination	45

(b) Miscellaneous

	Rs.
43. Enrolment fee	4
44. Fee for the re-totalling of marks	10
45. Fee for obtaining marks obtained at a University Examination	2
46. Fee for Previous Examination Certificates ..	5
47. Fee for Diplomas	10
48. Fee for obtaining Migration Certificates ..	5
49. Fee for Provisional Certificate	10
50. Fee for copy of entries in the Enrolment Register	2

ALLAHABAD UNIVERSITY

Introductory : Character of the University

Founded in 1887, the University concerned itself mainly with examinations, having no teaching staff except that of its School of Law until 1914. Subsequently it established Chairs and Readerships, etc., for research work in Economics, Ancient Indian Culture, Modern Indian History for graduate students. In January 1922 was passed an Act which came into operation in July 1922 for the re-organisation of the University as a Unitary, Teaching and Residential institution with control over the quality and character of the teaching in Associated Colleges. The Muir Central and Law Colleges became the nucleus of a teaching University, the jurisdiction of which was limited to territorial area of ten miles from the Convocation Hall of the University. Within this area there are three institutions which supplement instruction given in the University, viz., the Ewing Christian College, the Kayastha Pathshala College and the Agricultural College. The Women's Department undertakes full instruction for the degree course. By Act VIII of 1926 a University was established at Agra and the control of the Associated Colleges was transferred to it. The new Act, which came into force with effect from 1st July 1927, has set the Allahabad University free to function as a Unitary, Teaching and Residential University by relieving it of the responsibility of controlling the quality and character of the teaching given in its name by the Associated Colleges and placing such responsibility upon the new University. Tutorial instruction is regularly imparted in the University. There are Diploma Courses in Local Self-Government and Indian Music, and Certificate Courses in Laboratory Workshop Training, Social Service, and Photography and a department of Fine Arts including music.

OFFICERS AND STAFF OF THE UNIVERSITY (1953-54)

Chancellor :

Sri Rajyapal K. M. Munshi, B.A., LL.B., D.Litt.

Vice-Chancellor :

Prof. A. C. Banerji, M.A., M.Sc., F.R.A.S., F.N.I.

ALLAHABAD

Treasurer :

Shri K. L. Misra, M.A., LL.B

Registrar :

Shri K. L. Govil, M.A., B.Com.

*Deputy Registrar :**Vacant.**Assistant Registrar : (Administration).*

Dr. I. D. Caleb, M.Sc., D.Phil., L.T.

Assistant Registrar : (Accounts).

Sri K. P. Mohiley, M.A., B.T.

Proctor :

Lt.-Col. S. G. Tiwari, M.A.

From 1953-54

Librarian :

Dr. B. P. Saksena, M.A., Ph.D.

*Teaching Staff :***English***Professor :* Shri S. C. Deb, M.A.*Associate Professor :* Dr. P. E. Dustoor, M.A., D.Litt.*Readers :* 1. Shri K. K. Mehrotra, M.A., B.Litt.
(Oxon.)

2. Shri Lila Dhar Gupta, M.A.

3. Shri Bene Simlai, M.A.

4. Raghupati Sahai.

Lecturers : Twelve, one part-time teacher and three lady lecturers.**Philosophy***Professor :* Vacant.*Emeritus Professor :* Dr. D.R. Ranade, M.A., D.Litt.*Reader :* Shri R. N. Kaul, M.A., B.Litt. (Oxon.)*Lecturers :* Four, two lady lecturers and one part-time.

History	<i>Professor</i> : Dr. Banarsi Prasad Saksena, M.A., Ph.D. <i>Readers</i> : 1. Shri O. P. Bhatnagar. 2. Dr. G. R. Sharma. <i>Lecturers</i> : Seven and one lady lecturer. Two part-time lecturers.
Political Science	<i>Professor</i> : Dr. Iswari Prasad, M.A., LL.B., D.Litt. <i>Reader</i> : Capt. Ayadh Behari Lal. <i>Lecturers</i> : Eight and one lady lecturer.
Arabic & Persian	<i>Acting Professor</i> : Vacant. <i>Reader</i> : Dr. Syed Hussain. <i>Lecturers</i> : Four, and one part-time teacher.
Sanskrit	<i>Professor</i> : Dr. Babu Ram Saksena, M.A., D.Litt. <i>Reader</i> : 1. Shri K. C. Chattopadhyaya 2. Dr. Umesh Misra. <i>Lecturers</i> : Two, and one lady lecturer.
Urdu	<i>Professor</i> : Capt. S. M. Zamin Ali, M.A. <i>Reader</i> : Dr. Syed Aijaz Husain. <i>Lecturers</i> : Two, and one lady lecturer. One part-time lecturer.
Hindi	<i>Professor</i> : Dr. Dharendra Varma, M.A., D.Litt. <i>Readers</i> : Dr. R. K. Varma, M.A., Ph.D. & Dr. M. P. Gupta, Kumari C. Tripathi. <i>Lecturers</i> : Eight, one part-time teacher and one lady lecturer.
Physics	<i>Professor</i> : Dr. K. Banerji. <i>Readers</i> : Dr. K. Majumdar. Dr. G. B. Deodhra, M.Sc., D.Sc. <i>Lecturers</i> : Thirteen.
Chemistry	<i>Professor</i> : Dr. N. R. Dhar, M.Sc., D.Sc. <i>Emeritus Professor</i> : Dr. Bawa Kartar Singh, D.Sc., Sc.D. <i>Readers</i> : Dr. S. C. Ghosh, D.Sc. Dr. I. K. Taimuni, M.Sc., Ph.D. <i>Lecturers</i> : Seventeen Lecturers.

- Mathematics** *Professor*: Dr. P. L. Srivastava, M.A., D.Phil.
(Oxon.)
Readers: Dr. Gorakh Prasad, D.Sc.
Shri R. N. Chaudhuri.
Dr. B. N. Prasad, Ph.D., D.Sc. and Shri
Piare Mohan.
Lecturers: Five, and two part-time teachers.
- Botany** *Professor*: Dr. Shri Rajan, M.Sc., D.Sc.
Readers: Dr. R. K. Saksena, D.Sc., G. D.
Srivastava and Dr. R. N. Tandon.
Lecturers: Eight.
- Zoology** *Professor*: (Acting): Dr. H. R. Mehra, Ph.D.,
(Cantab.)
Readers: Shri S. C. Varma, M.Sc., Dr. S. K.
Dutt and Dr. N. D. L. Srivastava.
Lecturers: Eight.
- Commerce** *Professor*: Shri M. K. Ghosh, M.A., M.Com.
(Lond.)
Readers: Shri A. N. Agarwal and Shri D. N.
Elhance.
Lecturers: Seven, one part-time for Commercial
Law.
- Economics** *Professor*: Shri J. K. Mehta, M.A.
Readers: 1. Shri G. D. Karwal, M.A.
2. Shri P. C. Jain.
3. Shri D. S. Dubey.
4. Shrimati M. M. Thomas.
Lecturers: Ten, one lady lecturer.
- Law** *Professor*: Shri K.K. Bhattacharya, M.A., LL.M.
(Lond.), Bar-at-Law.
Readers: Shri K. R. R. Shastri, M.A., M.L.
2. Vacant.
3. Shri T. N. Sapru, B.A., LL.B.,
Bar-at-Law.
Lecturers: Six, and three part-time teachers.
- Education** *Reader-in-Charge*: Shri P. S. Naidu, M.A.
Lecturers: Two, and one lady teacher.
- Geography** *Professor*: Dr. R. N. Dubey, M.A., Ph.D.
Lecturers: Three.

- Chinese** *Lecturer:* Dr. W. Pachow, PED.
- French & German** *Lecturers:* Shri F. Benoit.
Dr. A. K. Mitra (French)
- Russian** *Lecturer:* Shri Suresh Chandra Sen Gupta
- Local Self-Government** Two part-time teachers.
- Military Science** *Reader-in-Charge:* Lt.-Col. S. G. Tiwari.
Lecturers: Three.
- Photography** *Instructor:* Shri M. P. Gupta.
- Social Service** *Teacher-in-Charge:* Dr. S. P. Naithani, M.Sc., Ph.D.
- Painting** *In Charge:* Shri R. N. Deb, M.A.
Instructors: Shri K. Majumdar.
Shri D. T. Dhulia.
- Music** *In Charge:* Prof. A. C. Mukerji.
Lecturer: Shri U.S. Kochak, M.Sc., B.Mus. and Shri P. R. Bhattacharya.
Instructors: 1. Shri B. S. Pathak and three part-time teachers.
2. Shri N. A. Joshi.
3. Shri S. R. Mawalanker.
4. Shri S. R. Bhat.
- Home Arts and Science** *Lecturers:* Dr. K. D. Vyas, B.Sc., M.B., B.S.
Dr. (Mrs.) Radha Pant, M.Sc., Ph.D.
(For Girls) Shrimati B. Dey, B.A., L.T.
Shrimati B. Neogi.
- Physical Trg. Staff** *Instructors:* Three.
- Workshop Trg. Class** *Instructor:* One.

Colleges of the University.

Canon Holland University College—*Principal:* Dr. H. N. Stuart, M.A, Ph.D,

Kayastha Pathshala University College—*Principal*: Dr. K. R. Saksena, M.A., D.Litt.
 Allahabad Agricultural Institute—*Principal*: Dr. A. T. Mosher, Ph.D.

Constitution of the University

The authorities of the University are: The Court, the Executive Council, the Academic Council, the Committee of Reference and the Faculties. The Committee of Reference is empowered to deal with items of new expenditure of Rs.3,000 or over in the case of recurring expenditure and of Rs.10,000 or over in the case of non-recurring expenditure. There are Women's Advisory Board, Physical Education Board, Muslim Advisory Board, and Board of Residence, Health and Discipline.

Number of Students in the University under Different Faculties

The number of students during the year 1952-53 was :

	<i>Men</i>	<i>Women</i>
Faculty of Arts		
„ Science (including Agriculture)	2,820	556
„ Law	1,735	61
„ Commerce	712	8
	856	23
	<hr/>	<hr/>
	6,123	648
	<hr/>	<hr/>
Grand Total	6,871	
	<hr/>	

Number of Successful Students in the Different Examination

The number of students who have passed the University Examinations of 1953 is shown below :—

B.A.	946
B.A. (Home Arts for Girls only)	1
B.Sc.	293
B.Sc. (Home Sciences for Girls only)	2
M.Ed.	32
M.A. (Prev.)	492
M.A. (Final)	433

M.Sc. (Prev.)	..	..	..	..	166
M.Sc. (Final)	..	..	..	..	137
D.Litt.	..	..	..	..	Nil
D.Phil.	..	..	..	..	7
LL.B. (Prev.)	..	..	..	..	368
LL.B. (Final)	..	..	..	..	294
B.Com. (Part I)	..	..	..	..	168
B.Com. (Part II)	..	..	..	..	141
M.Com. (Prev.)	..	..	..	..	86
M.Com. (Final)	..	..	..	..	75
B.Sc. Agr.	..	..	..	..	35
B.Sc. Agr. Engr. (Previous)	..	..	..	..	19
B.Sc. Agr. Engr. (Final)	..	..	..	..	13
LL.M.	..	..	..	..	1
L.S. G.D.	..	..	..	..	17
Total ..					3,696

Scholarships and Medals

The University awards a certain number of Research Scholarships to M.A.'s and M.Sc.'s annually. They are of the value of Rs. 50 per month each and are tenable for a period of one year. The University also awards annually two Scholarships of Rs. 20 per month and four of Rs. 15 per month each tenable for one year to post-graduate women students and medals to the students who do best at the B.A., B.Sc., and B.Com. Examinations. It also awards one D.Litt. Scholarship and one D.Sc. Scholarship, each of the value of Rs. 100 per month, six M.A. Scholarships of the value of Rs. 30 per month each, six M.Sc. Scholarships of the value of Rs. 30 per month each. The period of tenure of each of these Scholarships is two years.

The following are the endowed Scholarships and Medals in the University :—

Queen Empress Victoria Jubilee Medal.—(Capital value Rs. 1,000): Two silver medals are awarded to the two most successful students in the M.A and B.A. Examinations in one year and two most successful students in the M.Sc. and B.Sc. Examinations in the next year.

Iqbal Medal.—(Capital value Rs. 1,500): A gold medal is awarded to the first Muhammadan student at the B.A. Examination.

Sir Charles Elliot Scholarship.—(Capital value Rs. 6,000): One Scholarship of the value of Rs. 17-8-0 per month tenable for one year is awarded annually to a B.Sc. who wishes to prosecute his studies further.

Griffith Memorial Fund Scholarships.—(Capital value Rs. 7,600): Two Scholarships and certain prizes are awarded to students who actually study in the Sanskrit College, Banaras.

Lumsden Memorial Scholarships and Gold Medal.—(Capital value Rs. 9,400): One Scholarship of the value of Rs. 8 per month tenable for one year is awarded in one year to the student who has stood first in Sanskrit at the Intermediate Examination and in the next year to the student who has stood first in Arabic at the same examination. A gold medal of the value of Rs. 50 is also awarded every year to the LL.B. candidate who stands first.

Swarnamayi Uma Charan Prize.—(Capital value Rs. 1,000): A prize of the value of Rs. 35 is awarded to the B.Sc. student who stands first.

Lala Samwal Das Stipends.—(Capital value Rs. 24,900): Four stipends of the aggregate value of Rs. 50 per mensem are awarded only to Khattri or Saraswat Brahman students in the Intermediate and B.A. classes.

Himangini-Bhuvaneswari Book Prize.—(Capital value Rs. 1,000): Annual Book Prize to the candidate who stands first in Sanskrit in the Intermediate Examination.

Empress Victoria Readership.—(Capital value Rs. 1,36,000): The value is Rs. 100 per mensem. It is tenable for three years for researches in Science.

Kamta Prasad Research Scholarships.—(Capital value Rs. 51,600): Two Scholarships of the value of Rs. 100 per mensem each for two years for Hindus, preferably of the Vaish community.

Besides these there are also the following Prizes and scholarships:—

Ward Vidyant and Cox Vidyant Memorial Gold Medals.—(Capital value of Rs. 3,000): Two gold medals to be called the Ward Vidyant Memorial Gold Medals are awarded every year to

the best students in the M.Sc. and B.Sc. Examinations in Physics and one gold medal to be called the Cox Vidyant Memorial Gold Medal is awarded every year to the best student in the M.A. or M.Sc. Examination in Mathematics.

Harrison Memorial Gold Medal.—(Capital value Rs. 1,000) : One gold medal is awarded to the best student who stands highest in the M.A. or M.Sc. or other higher Examination of the University in alternate years in English and Mathematics.

Srimati Leila Sukhadharshni Atal Scholarships.—(Capital value Rs. 5,200) : Two Scholarships of Rs. 9 per month each for lady students available in the 1st and 2nd year of B.A. and B.Sc. classes respectively on the results of the Intermediate Examination.

Shrimati Sharat Kumari Dasi Scholarship and Prize.—(Capital value Rs. 5,000) : (a) a Post-graduate Scholarships of Rs. 20 per month tenable for 10 months, awarded every year to the best student in Mathematics and (b) a book prize to the best Mathematics student.

Sri Krishna Kaul Memorial Gold Medal.—(Capital value Rs. 1,250) : A gold medal is awarded to the student who stands first in Political Science at the B.A. Examination.

P. Seshadri Gold Medal.—(Capital value Rs. 1,000) : A gold medal is awarded to the student of the University who writes the best Essay in English.

The Maharajadhiraja Rameshwara Singh Bahadur of Darbhanga Lecturership.—(Capital value Rs. 18,000) : A Lecturer shall be appointed every alternate year on an honorarium of Rs. 1,000 to deliver at the University a course of at least four lectures on a subject bearing on Indian Life and Thought.

Sir Henry Richards Gold Medal ; Homersham Cox Medal ; Dr. Kally Dass Nundy Thakomony Medal ; Hariprava Medal ; Ram Mohan De Medal ; Mahendra Nath Dutt Medal ; General Ali Asghar Khan Scholarships ; Tirthanatha Jha Scholarship and Ramakashi Devi Gold Medal ; Vizianagaram Scholarships ; Nawab Ali Asghar Khan's Arabic Scholarships ; Rampur Scholarships ; Purushottamji Scholarships ; Peary Mohan Banerji Gold Medal ; Nilkamal Mitra Gold Medal ; Moulvi Haider Husain and Choudhri Dhian Singh Prize ; Dr. E. G. Hill Memorial Prize ; S. A. Hill Memorial Prize ; Chintamani Ghosh Medals, Muir College Fund Prize ; Professor Dunn

Medal ; Bhagbhari Handoo Prize ; Sashilata Virabhadra Jha Gold Medal ; Purshottam Krishna Scholarship and Paudit Kanhaiya Lal Gold Medal ; Khajurgaon Raj Gold Medal ; and Awadhwasi Sita Ram Gold Medal ; Prof. A. C. Mukerji Gold Medals ; Gauri Shankar Chatterji Book Prize ; Pundrik Ray Bakshi Book Prize ; Naimi Arabic Scholarship ; Pt. Bhagwan Din Dube Gold Medal ; Miss Munni Gurtu Gold Medal ; Dr. P. D. Banerji Endowment Fund ; Dr. R. N. Bhatia Endowment fund ; Priyamvada Asthana Gold Medal Endowment Fund ; Triloki Nath Ram Priya Asthana Pureskar ; Shri Vilas Scholarship Endowment Fund ; Baldeo Ram Dave Scholarship Fund ; Babu Bal Bhadra Prasad Art Collection Fund ; Sastry Medal Endowment Fund ; Dr. L. C. Jain Endowment Fund ; Jha Endowment Fund ; Saraswati Varma Endowment Fund ; Dr. Bhavadeo Mukerji Gold Medal Endowment Fund ; Ushalata Mukerji Gold Medal Endowment Fund ; Raja Panna Lall Endowment Fund ; Sukhia Endowment Fund ; K. P. Chatterji Medal Fund ; Shanti Dantyagi Scholarship, Brij Rani Kunwar Scholarship, Daya Shankar Dube Endowment Fund ; Ganga Pd. Upadhyaya Endowment Fund ; Ishawar Narain Kichlu Gold Medal Endowment Fund ; Man Singh Endowment Fund ; Mohan Shyam Endowment Fund ; N. R. Dhar Endowment Fund ; Nepal Chaii in Asian History and Culture, Nagendra Nath Rakshit Bengali Essay Prize Endowment Fund ; Nand Rani Medal Endowment Fund ; Pushpa Khanna Prize Endowment Fund ; Lala Puttupal Medal Endowment Fund ; Munshi Raja Bahadur Endowment Fund ; Dr. Ram Saran Das Memorial Fund ; R. C. Chaudhuri Memorial Silver Medal Endowment Fund ; Saraswati Varma Dramatic Cup Endowment Fund.

Library, Museums, Laboratories, etc.

There is a general Library. At the end of the year 1952-53 there were volumes in it.

There is a Coin Museum in the Library building. There are also departmental libraries for the use of teachers and a Laboratory is attached to each of the Departments of Physics, Chemistry, Botany and Zoology. There is also a Museum attached to the Commerce Department. An Art Gallery has also been opened.

Provision for Research

The University Act of 1921 makes it one of the duties of

the University to arrange for the carrying on of independent research and this duty is discharged by provision of research scholarships in the different departments of study. The teachers also carry on research and contribute papers to the leading scientific journals. The University itself publishes *University Studies*, which is a record of research work carried on in the University.

The number of University research scholarships sanctioned for 1952-53 is as follows :

History Department	..	..	..	1
Economics Department	..	..	..	1
Sanskrit Department	..	..	..	1
Hindi Department	..	..	..	1
Persian and Arabic Department	..	..	..	1
Urdu Department	..	..	..	1
Philosophy Department	..	..	..	1
Politics Department	..	..	..	1
Commerce Department	..	..	..	1
Physics Department	..	..	..	1
Chemistry Department	..	..	..	1
Zoology Department	..	..	..	1
Botany Department	..	..	..	1
Mathematics Department	..	..	..	1
Total				14

The University has a Provident Fund to which every officer or servant of the University holding a substantive appointment of Rs. 30 per mensem or upwards, is required to subscribe at the rate of 8 per cent of his salary, the University contributing at the rate of 12 per cent in the case of subscribers drawing a salary of Rs. 500 or less, 10 per cent in the case of subscribers drawing a salary of more than Rs. 500 but not exceeding Rs. 1,000 and 8 per cent in the case of subscribers drawing a salary of over Rs. 1,000. Those getting below Rs. 30 per mensem are required to contribute at 0-1-0 per rupee of their pay, the University contributing an equal amount.

Women's Education

Arrangements have been made for giving both formal and tutorial teaching to women students of the B.A. classes separate from men at the Women's Department of the University. The number of lady lecturers sanctioned for the purpose is ten.

Provision for Safeguarding Health, Medical Inspection, Discipline, etc.

The Board of Residence, Health and Discipline of the University is vested with the power of dealing with all matters concerning the residence, health and discipline of University students. The constitution and powers of the Board are defined in Chapter VIII of the University Calendar. Two Medical Officers of the University are in charge of the Colleges of the University and the Hostels and are required to undertake the medical examination of all the University students. The University has a dispensary with indoor beds for the benefit of its students and an Isolation Ward.

The University grants in Arts, the B.A. Degree (Pass) and the Master's Degree in Education, the B.Sc. Degree (Pass) the B.Sc. (Ag.) and B.Sc. (Ag.) Engineering and B.Sc. special course for Women and the Master's Degree. The Professional Degrees and Diplomas are Master of Commerce, Bachelor of Commerce, Bachelor of Laws and Master of Laws. D.Litt., D.Sc., D.Phil., and LL.D are the Doctor's Degrees.

Admission to Courses of Study

Admission to a course of study for the Bachelor's Degree is granted only to those who have passed the Intermediate Examination of the Board of High School and Intermediate Education of the Uttar Pradesh or of any University in Indian Union incorporated by any Law for the time being in force or any examination recognised as equivalent thereto. The Higher School Certificate Examination of the Cambridge University, the Intermediate Examination of the Mysore University and the Preliminary Examination of the Mayo College, Ajmer, have been recognized as equivalent to the Intermediate Examination of the Board of High School and Intermediate Education, U.P. The Intermediate Examination of the Rajputana Board of High School and Intermediate Education and the Intermediate Examination of the Dacca Board of Intermediate and Secondary Education have also been so recognised, the latter subject to certain conditions. The final Examination for the full course certificate of the Government Commercial Institute, Calcutta, after passing the Matriculation or any equivalent examination of any University or Board established by Law in India has also been recognized as equivalent to the Intermediate Examination for admission to B.A. class. A student who has (1) passed any of the following examinations: the Fazil Examination

in Arabic or Kamil Examination in Persian conducted by the Education Department of the Uttar Pradesh, the Acharya Examination of the Government Sanskrit College or of the Banaras Hindu University, the Dabir Kamil or Fazil Examination of the Lucknow University, the Acharya Examination of the Jaipur State, the Ratna Examination of the Hindi Sahitya Sammelan, the Shastri or Maulvi Fazil or Munshi Fazil Examination of the Punjab University, the Saraswati Examination of Prayag Mahila Vidyapith and (2) has also passed in English the Intermediate Examination of the U. P. Board of High School and Intermediate Education will be eligible for admission to the University and after a regular course of study extending over two academic years will be eligible to appear at the B.A. Examination in English only. If successful he will be granted certificate of having passed the examination in English only. Admission to post-graduate classes is allowed to graduates of this University or of any other University in the Indian Union recognized by the law of the place in which it is situated or of any University which may, from time to time, be recognized for this purpose. The Mysore University has been so recognized so far. Admission to B.Com. classes is granted to those who have passed the Intermediate Examination of the U.P. Board with Economics or Intermediate Examination in Arts and Science of the Andhra University with Banking, Accountancy and Commercial Geography as their subjects or any University in India established by Law, the Commercial Diploma Examination of the Allahabad University or of the Board of High School and Intermediate Education, U.P., or the Intermediate Examination in Commerce of the U. P. Intermediate Board or have passed certain higher examinations. Graduates in Commerce are eligible for admission to the M.Com. class. Admission to the B.Sc. class in Agriculture is granted to those who have passed the Intermediate Examination in Agriculture of the U. P. Board of High School and Intermediate Education or the First Examination in Agriculture of the Punjab University or the Intermediate Examination of the Nagpur University.

Courses of Study in Arts

Bachelor of Arts (B.A.) (Pass).—The course of study extends over two years and candidates are required to study and be examined in Compulsory English and any three of the following branches :—

- (a) English Literature, Arabic, Persian or Sanskrit, Hindi or

Urdu, (b) Mathematics, (c) Philosophy, (d) Economics, (e) History, (f) Geography, (g) Politics, (h) Military Science, (i) Indian Music, and (j) Education. The Examination in Compulsory English consists of two general papers and a *viva voce* and that in English Literature of three special papers. Three papers are set in each of the Classical Languages and in Mathematics, two papers each in Philosophy, Economics, Politics History, Geography and Military Science, a Practical Test in Military Science and Geography and three papers each in Urdu and Hindi.

The minimum for a pass in all subjects is 33 per cent. of the aggregate.

Master of Arts (M.A.).—The course of study extends over two years. The examination consists of two parts—the M.A. (Previous) Examination held at the end of the first year and the M.A. (Final) Examination held at the end of the second year. A candidate may select one of the following subjects—Languages: (1) English, Sanskrit, Arabic, Persian, Urdu or Hindi, (2) Mental and Moral Science, (3) History, (4) Mathematics, (5) Economics, (6) Political Science, and (7) Diplomacy and International affairs.

At the M.A. (Previous) Examination there are four papers in English Literature, Sanskrit, Arabic, Persian, Hindi, Urdu, Politics, History, Mathematics, and Mental and Moral Science and five papers in Economics. There is also a *viva voce* examination in all the subjects except in Geography and Mathematics. For the Final Examination five papers are set in English Literature and Mathematics, and four papers in Arabic, Persian Sanskrit, Hindi, Urdu, Economics, History, Politics, and Mental and Moral Science. Of the four papers in Sanskrit, one is on composition and the other three on texts in one of the following groups; (a) Vedic Language and Literature, (b) Sanskrit Language and Literature. (c) Dharma Shastra, (d) Philosophy, (e) Epigraphy and History, (f) Pali and Prakrit. There is a *viva voce* at the Final Examination in all the Subjects except Mathematics.

The minimum pass marks in all the subjects are 36 per cent.

Science Faculty

Bachelor of Science (B.Sc.) (Pass).—The course of study extends

over two academic years, and candidates must study and be examined in either of the following groups of subjects: (a) Physics, Chemistry and Mathematics, (b) Chemistry, Botany and Zoology, (c) Geography, Botany and Zoology, (d) Physics, Mathematics and Military Science, (e) Mathematics, Chemistry and Military Science, (f) Chemistry, Military Science and Botany or Zoology, (g) Military Science, Botany and Zoology. There are two papers and a practical examination in each subject except Mathematics in which three papers are set. A candidate may, at his option, take General English as an extra subject in which there are two papers and a *viva voce*, but the marks in General English do not count towards the aggregate.

The minimum for a pass in each Science subject and also in English is 33 per cent. and 33 per cent. in the aggregate. A candidate is required to pass in Theory and Practical separately.

Students for the Pass Course may be transferred to the Honours Course within three months of the first year of study on the recommendation of the Head of the Department and from Honours Course to Pass Course within first six months of the first year of study.

Pass Degree of Bachelor of Science (for women candidates only).

1. Courses of Study for the B.Sc. (Pass) degree shall extend over a period of two academic years and the degree examination shall be held at the end of the second academic year.

2. A candidate who has attended a regular course of study in the University for this degree shall be permitted to appear at the examination.

3. Every candidate shall be required to pass in the following group of subjects.

(i) *Science.*

Paper I. (a) Elementary Chemistry and (b) Elementary Bio-Chemistry.

Paper II. Bacteriology and Hygiene.

Paper III. Human Physiology including Food and Nutrition.

(ii) *Sociology.*

Paper I. General Principles of Economics.

Paper II. Psychology.

extends over a period of two academic years. Candidates are required to study (1) Advanced Shop Work, Engineering, Drawing, and Structural Design. Agricultural structures. (2) Materials of construction and strength of materials, mechanics and statics, Agricultural machinery, Principles of Electric machinery. (3) farm management, soil and water conservation, including surveying, machine design. The minimum for a pass is 33 per cent in each subject and 33 per cent in the aggregate. Candidates shall be required to pass separately in the written as well as in the practical examination of each subject.

Master of Science (M.Sc.).—The course of study extends over two years after graduation and the examination consists of two parts—the Previous and the Final—held at the end of the first and the second year respectively. Candidates must offer one of the following subjects; (a) Mathematics, (b) Physics, (c) Chemistry, (d) Zoology, and (e) Botany, (f) Agricultural Botany, (g) Agricultural Zoology. At the Previous Examination, there are three papers and a practical examination in Physics, Botany and Chemistry, four papers and practical examination in Zoology, and four papers in Mathematics. In Mathematics the examination consists of the B.Sc. Examination papers in the branch of Mathematics in which the Honours candidates do not proceed for the M.Sc. Degree. At the Final Examination, five papers are set in Mathematics, four papers in Zoology and two papers in Physics, Botany and Chemistry, with a practical examination in each subject except Mathematics.

The minimum for a pass is 36 per cent in each subject.

Bachelor of Commerce (B.Com.).—The course of study extends over two years and is open to students who have passed one of the following examinations: Commercial Diploma of a University or of the Board of High School and Intermediate Education, U. P., the Intermediate Examination in Commerce the same Board; Bachelor of Arts with Economics; Previous Master of Arts in Economics of the University, Master of Arts Examination of any University; the Intermediate Examination in Arts and Science of Andhra University with Banking and Accountancy and Commercial Geography; the Intermediate Examination with Economics; and the Final Examination for the full course certificate of the Government Commercial Institute, Calcutta. The examination is ordinarily divided into two parts: Part I being taken at the end of the first year and part II at the end of the second year, or it may be taken

entirely at the end of the second year under certain conditions.

The following are the subjects to be studied in the first year class : (1) (a) Commercial and Industrial Organization, (b) Accountancy, (c) Commercial Law ; (2) (a) Principles of Economics and Public Finance, (b) Currency and Banking, (c) Economic and Commercial Geography. One paper is set in each of the subjects.

The subjects to be studied in the second year class are : (1) English including one paper on Essay on a subject of commercial or economic interest ; (2) (a) Statistics, (b) Economic Development of U. S. A., Great Britain, Germany and Japan, (c) Indian Industries, Trade and Transport, (3) One of the following groups, (2) papers : (a) Advanced Accountancy and Auditing, (b) Advanced Banking and Foreign Exchange ; and Law and Practice of Banking, (c) Industrial and Commercial Law, Secretarial Work and Practice, and (d) Public Finance and Administration, (e) Economics of Transport and Law of Carriage by Railways and Organization of Transport, (f) Life Assurance and Property Insurance, (g) Actuarial Science, (h) Rural Economics and Co-operation, (i) Salesmanship and Advertising, and (j) Inland and Foreign Trade.

One paper is set in each of the subjects, except in English, and those under (3) in which two papers are set in each subject. There is also a *viva voce* examination in English on a commercial subject.

The minimum for a pass is 33 per cent. in each subject or group of subjects and 40 per cent in the aggregate. For a position marks of the two examinations, Parts I and II count together for place on the Pass List of the Final Year.

Ordinances for the Degree of Master of Commerce

1. A candidate who, after passing the examination for the degree of Bachelor of Commerce, has completed a regular course of study in the University for one academical year shall be admitted to the Previous Examination for the degree of Master of Commerce.

2. A candidate who, after passing the M.Com. (Previous) Examination, has completed a regular course of study for one

academical year in the University, shall be admitted to the Final Examination for the degree of Master of Commerce.

3. The Examination for the degree of M.Com. shall comprise two parts :—

M.Com. (Previous).—A written examination in four selected subjects.

M.Com. (Final).—A thesis or a dissertation on a problem relating to Indian Commerce, Industries, Finance or Transport.

M.Com. (Previous).—Written Examination: The written examination shall comprise four papers of three hours each. The candidates may offer any four of the following subjects on each of which one paper will be set: (1) The Organization of Industries in India, (2) Corporation Finance, (3) The Organization of Markets, (4) International Banking and Foreign Exchange, (5) International Trade and Fiscal Policy, (6) Transport, (7) Insurance, (8) Economics of Agriculture with special reference to India (Rural Economics), (9) Co-operation.

M.Com. (Final).—The Thesis: Every candidate for the M.Com. (Final) Examination shall submit along with his application three printed or type-written copies of a thesis on some problem concerning Indian Commerce, Finance, Transport or Insurance or any other allied subject approved by the Committee of Courses and Studies in Commerce* and shall in foot-notes or preface quote precise references to published works or reports on which he has relied for his facts and figures.

4. A candidate for the M.Com. (Final) Examination shall pursue his research at Allahabad under the superintendence of a member of the teaching staff to be nominated by the Head of the Department of Commerce.

5. He shall pursue his research at Allahabad unless the Vice-Chancellor, on the recommendation of the Head of the Department of Commerce, gives him leave of absence for

N.B.—No student will be allowed to take up a subject in which instruction is not provided.

*The candidate must select the subject for this thesis within three months of his admission to the M. Com. Previous class in consultation with the Head of the Department for the sanction of the same by the Committee of Courses and Studies in Commerce in time.

ordinarily not more than three months on the ground that it is in the interest of his research that he should work elsewhere.—

Under Chapter XLVII, the following be *added* under the standard of Examination para. 4 :—

M.Com. Examination (Previous)

Each paper—100 Marks ..	{	Minimum pass marks 36 per
		cent. of the aggregate marks,
		in the Previous Examination.

M.Com. Examination (Final)—Thesis

External Examiner—250 Marks.	{	Minimum pass marks 36		
Internal Examiner—150 Marks			per cent. of the aggregate	
<i>Viva voce</i> on General Commercial				marks.
Knowledge—100 Marks.				

Note.—Marks of the two examinations, Previous and Final will be added to determine the position on the Pass List of the Final Year.

1st Class—60 per cent. and over.

2nd Class—48 per cent. and above.

3rd Class—36 per cent. and above.

Bachelor of Laws (LL.B.).—The course of study extends over two years and is open to graduates in Arts, Science, Commerce and Agriculture. The Examination consists of two parts—the Previous and Final—held at the end of the first and second years respectively. The subjects for the Previous Examination are: (1) Roman Law, (2) The Law of Contracts except the Law of Partnership, (3) The Law of Easements and Torts, (4) The Law of Evidence, (5) Criminal Law and Procedure, (6) Constitutional Law and Administrative Law and (7) Hindu Law. The following are the subjects for the Final Examination: (1) Civil Procedure including Limitation, (2) The Law relating to the Land Tenures, Rent and Revenues, (3) The Law of Partnership and of Companies, (4) Muhammadan Law, (5) The Law relating to Transfer of Property, (6) Equity with special reference to Trusts and Specific Relief, (7) Jurisprudence, and (8) Public International Law.

The examination is conducted by papers. The minimum for a pass is 30 per cent. in each subject and 50 per cent. in the aggregate.

Master of Laws (LL.M.).—The LL.M. Examination is open to Bachelors of Laws of the Allahabad University of at least two years' standing or of any other University to which Ordinance 4 of Chapter XXX applies. Candidates are required to offer four compulsory and two optional subjects. The compulsory subjects are (1) Jurisprudence and Principles of Legislation, (2) Constitutional Laws; British and Indian (3) Equity, and (4) either (a) Hindu Law or (b) Muhammadan Law. The following are the optional subjects: (1) Muhammadan Law or Hindu Law whichever is not chosen as a compulsory subject, (2) Law of Contracts, (3) Transfer of Immovable Property and Easements, (4) Roman Law, (5) International Law, Public and (6) International Law, Private.

The examination is conducted *viva voce* and by written papers. Candidates obtaining 40 per cent. in each subject and not less than 60 per cent. on the whole are declared successful in the First Class, and candidates obtaining 40 per cent. in each subject and 50 per cent. on the whole in the Second Class.

Doctorates

Doctor of Philosophy, Arts (D.Phil.).—A candidate for the Degree of Doctor of Philosophy must be either (1) a Master of Arts of this University or (2) a Master of Arts of any other University recognized by this University.

Every candidate shall pursue as a student of the University a course of research of not less than 20 months' duration.

Note.—A teacher of this University shall be considered to be a student for the purpose of this Ordinance.

He shall pursue his research at Allahabad unless the Vice-Chancellor, on the recommendation of the supervisor, gives him leave of absence for ordinarily not more than one year on the ground that it is in the interest of his research that he should work elsewhere.

After the thesis is completed the candidate shall supply five printed or typed copies of his thesis, which shall comply with certain conditions.

If the majority of examiners report that the thesis is satisfactory, the University shall arrange for the *viva voce* examination.

If the *viva voce* examiners are also satisfied, the recommendations of the thesis and *viva* examiners shall be placed by the Research Degree Committee before the Faculty for necessary action.

Doctor of Letters (D.Litt.).—A candidate for the Degree of Doctor of Letters must be either (1) (a) a Doctor of Philosophy of this University of at least two years' standing, or (b) a Master of Arts of this University of at least seven years' standing, or (2) (c) a Master of Arts of at least seven years' standing of a University recognized by this University, who has resided at the University for at least one year, or (d) a Doctor of Philosophy of another University recognised by the Allahabad University who has resided at the University for at least one year. Candidates under (b) and (c) must satisfy the Faculty that the work already done by them is of sufficient merit to earn exemption from the D.Phil. Degree.

Every candidate who intends to supplicate for the said degree shall communicate his intention to do so to the Registrar stating the subject chosen by him for the thesis and support his application by submitting a copy of the contribution published by him towards the advancement of the subject of his study. He shall submit a certificate from two Members of the Faculty that he is a fit and proper person to supplicate for the Degree of Doctor of Letters.

After the thesis is completed, the candidate shall supply five printed or typed copies of his thesis. The thesis shall comply with certain conditions.

If the majority of examiners report that the thesis is satisfactory, the University shall arrange for the *viva voce* examination.

If the *viva voce* examiners are also satisfied, the recommendations shall be placed before the Faculty for necessary action.

Doctor of Philosophy in Commerce (D.Phil. Com.).—The ordinances for D.Phil. in Arts have been adopted.

Doctor of Letters in Economics (D.Litt. Econs.).—The conditions of admission are the same as those for Doctorate in Arts,

Doctor of Philosophy, Science (D.Phil.).—A candidate for the Degree of Doctor of Philosophy must be either (1) a Master of Arts or Science of this University or (2) a Master of Arts or Science of any other University recognized by this University.

Every candidate shall pursue as a student of the University a course of research of not less than 20 months' duration.

Note.—A teacher of this University shall be considered to be a student for the purpose of this Ordinance.

He shall pursue his research at Allahabad unless the Vice-Chancellor, on the recommendation of the supervisor, gives him leave of absence for ordinarily not more than one year on the ground that it is in the interest of his research that he should work elsewhere.

No candidate will be permitted to proceed to any research degree unless and until he has paid all dues as a student.

After the thesis is completed the candidate shall supply five printed or typed copies of his thesis which shall comply with certain conditions.

If the majority of examiners report that the thesis is satisfactory, the University shall arrange for the *viva voce* examination.

If the *viva voce* examiners are also satisfied, the recommendations of the thesis and *viva* examiners shall be placed by the Research Degree Committee before the Faculty for necessary action.

Doctor of Science (D.Sc.).—A candidate for the Degree of Doctor of Science must be either (1) (a) Doctor of Philosophy of this University of at least two years' standing or (b) a Master of Arts or a Master of Science of this University of at least seven years' standing, or (2), (c) a Master of Arts or Master of Science of at least seven years' standing of a University recognized by this University who has resided at the University for at least one year, or (d) a Doctor of Philosophy of another University recognized by the Allahabad University, who has resided at the University for at least one year. Candidates under (b) and (c) must satisfy the Faculty that the work already done by them is of sufficient merit to earn exemption from the D.Phil. Degree.

No candidate will be permitted to proceed to any research degree unless and until he has paid all dues as a student.

Every candidate who intends to supplicate for the said degree shall communicate his intention to do so to the Registrar stating the subject chosen by him for the thesis and support his application by submitting a copy of the subject of his study. He shall submit a certificate from two Members of the Faculty that he is a fit and proper person to supplicate for the Degree of Doctor of Science.

After the thesis is completed, the candidate shall supply five printed or typed copies of his thesis. The thesis shall comply with certain conditions.

If the majority of examiners report that the thesis is satisfactory the University shall arrange the *viva voce* examination.

If the *viva voce* examiners are also satisfied, the recommendations shall be placed before the Faculty for necessary action.

Doctor of Laws (LL.D.).—A Master of Laws of the University of Allahabad or any person who has passed the Examination for Honours in Law of that University on or before 1st of November 1906, is admitted to the LL. D. Degree if he has written an essay approved by the Faculty of Law or by a Sub-Committee thereof and has produced a certificate from two Members of the Faculty of Law or two Doctors of Laws to the effect that since obtaining the Degree of Master of Laws or since passing the examination for Honours in Law, he has practised his profession with repute for at least five years or has contributed either by scholastic work or by literary production, to the advancement of Law and that in habits and character he is a fit person to receive the Degree.

Conditions of Readmission to the University Examinations

A candidate who has failed once in a Degree Examination is allowed to reappear within five years without putting in the required terms but under certain prescribed conditions. A candidate who has attended a regular course of study for the Previous or Final Examination for the Degree of Bachelor of Laws is allowed to appear at any subsequent examination without attending a further regular course of study provided that he

has attended a regular course of study within ten years immediately preceding the examination and provided also that he has attended lectures either in the University School of Law previous to 1923 or in the Law Department of the University. A candidate who has attended a regular course of study for the Final M.A. or Final M.Sc. (Mathematics) Examination is allowed to appear at any subsequent examination without attending a further regular course of study provided that his application is recommended by the Dean of the Faculty concerned and provided also that he takes the subsequent examination within five years of his having attended a regular course of study. Any candidate who has failed in one subject of the B.A., B.Sc., or B.Com. Examination, but has attained the prescribed standard, is allowed to appear at a subsequent examination in that subject alone. Ex-students are required to pay an annual fee of Rs. 5 per year to appear at subsequent examinations.

Post-graduate Diploma Course in Local Self-Government Administration.—From the commencement of the Academic Session of 1941 the University has started a Post-graduate Diploma Course in Local Self-Government Administration. The duration of the course is one year. The Examination consists of 4 written papers, a *viva voce* and a practical training test.

Teaching of French, German, Military Science, Indian Music, Painting and Bengali

The University provides for the teaching of French, German, and Indian Music and awards a certificate or Proficiency and a Diploma in Indian Music after a course of two years. The classes are held out of University hours. They are open to students and members of the teaching staff but others may also be admitted with the previous permission of the Vice-Chancellor.

Ordinances for a Diploma in Painting have been framed and classes have been started. The fee for the teaching of French, German and Italian is Rs. 4 per month and that of Music Rs. 20 per session. The fee for a Certificate and Diploma is Rs. 10.

The Bengali Association of the University has undertaken to hold classes for the teaching of Bengali, and it is expected that classes will soon be started for the teaching of Marathi. A Certificate of Proficiency in Social Service and Village Uplift Work has been instituted and classes have been started, the annual fee being Rs. 6 and the examination fee Rs. 5. Classes

for Laboratory, Workshop Training and for Photography have also been started, the fee is Rs. 3 p r month each.

Table of Examination Fees

	Rs.
B.A. or B.Sc. (Pass)	30
Each Subsidiary Subject	10
B.A. III Year or M.Sc. (Previous)	20
M.A. (Final) or M.Sc. (Final)	30
B.Com. (Part I)	20
B.Com. (Part II)	20
M.Com. (Previous)	20
M.Com (Final)	30
M.Ed.	50
LL.B. (Previous)	30
LL.B. (Final)	40
LL.M.	100
D.Phil.	150
D.Litt. in Arts	250
D.Litt. in Economics	250
D.Sc.	250
LL.D.	200
Certificate of Proficiency in French or German	10
Diploma in Local Self-Government Administration	25
Diploma in Indian Music	10
Diploma in Painting	10
Diploma in Photography	5

Enclosure I

ANDHRA UNIVERSITY

Introduction

The Andhra University, Waltair, was constituted to provide the Andhra Districts of the Madras Presidency with a University of their own. The affiliated and Oriental colleges provide courses of study qualifying students for admission to University examinations including those in Oriental Languages, but excluding those for Honours degrees.

The University College of Arts and Commerce was opened on 1st July, 1931 ; the Jeypore Vikrama Deo College of Science and Technology on 4th July 1932 ; the Erskine College of Natural Sciences was opened in June 1941, and the University College of Law in July 1945.

Consequent on the bombing of Vizagapatam, the Head-quarter was temporarily shifted to Guntur in April 1942. In January 1946, the University was shifted back to Waltair. The University College of Law which was temporarily located at Masulipatam was shifted to Waltair in May 1949.

The principal Officers of the University are :—

Chancellor

His Excellency Shri Sri Prakasa, Governor of Madras.

Pro-Chancellor

Mr. B. Gopala Reddy.

Vice-Chancellor

Dr. V. S. Krishna, B.A.(Oxon.), Ph.D. (Vienna).

Registrar

K. V. Gopalaswamy, M.A. (Oxon.), Barrister-at-Law.

University Orators

Prof. K. R. Srinivasa Iyengar, M.A., D.Litt.
Mr. M. R. Apparao Bahadur, M.A.

Honorary Legal Adviser

Mr. L. Subba Rao, B.A., B.I.

The Vice-Chancellor is a whole-time salaried officer of the University.

Authorities

The principal authorities of the University are:—

(1) The Senate, (2) The Syndicate, (3) The Academic Council, (4) The Faculties, and (5) The Boards of Studies.

The Senate consists of 135 members and is the supreme governing body.

The Syndicate consists of 16 members and is the chief executive body of the University.

The Academic Council which consists of 75 members, prescribes courses of study, determines the curricula, has general control of teaching within the University and is responsible for the maintenance of the academic standards thereof.

University Representatives on Outside Bodies*I. The Inter-University Board, India*

1947—The Vice-Chancellor, Andhra University.

II. The Indian Medical Council

1952—Dr. S. N. Gantayat, M.B.B.S., D. O. (Madras), D. O. (Oxon.)

III. The Madras Medical Council

1950—Rao Bahadur B. Tirumal Rao, L.M.S., F.R.C.S., L.R.C.P. & S. (Edin.), D.L.O. (Lond.), F.R.F.P.S. (Glas.)

IV. *Selection Committee for Selecting Candidates for the Post-Graduate Courses in Agriculture, New Delhi.*

1938—The Vice-Chancellor, Andhra University.

V. *The Sanskrit Entrance Examination Board.*

1952—Mr. T. Narasimhachari, M.A.L.T., M. R. Sanskrit College, Vizianagram. (To represent Telugu for 3 years from 8-1-'52.)

Teaching Staff of the University

Principal

Prof. K. Rangadhama Rao, M.A. (Mad.), D.Sc. (Mad.), D.Sc. (Lond.)

Mathematics

Professor : 1. Dr. V. Ramaswami, B.A. (Hons.), (Madras), B.A. (Cantab.), Ph.D. (Cantab.), (Head of the Department.)

Readers : (3) 1. Mr. M. Lakshmanamurti, M. A., 2 and 3 vacant

Lecturers : Two.

Tutors : Two.

Philosophy

Professor : 1. Prof. Saileswar Sen, M.A., D.Litt., D.Phil. (Head of the Department.)

Reader : (Vacant.)

Lecturers : One.

History and Politics

Professor : 1. G. Venkatarao, M.A., L.L.B. (Head of the Department).

Professor : Mr. N. Srinivasan, M.A. (Mad.) B.Sc. (Hons.) (Lond.)

Readers : (2) 1. Dr. G. Ramachandrayya, 2. Vacant.

Lecturers : Two.

Economics and Sociology

Professor : Dr. M. H. Gopal, M.A., Ph.D., (Head of the Department).

Reader : Vacant.

Lecturers : Three

Tutor : One.

Telugu

Professor : Vidwan G. J. Somayaji, M.A.,
L.T., P.O.L.

Lecturer : One.

Pandit : One.

Sanskrit

Professor : One (Vacant.)

Reader : One (Vacant.)

Pandit : 1. Mr. Madhusuddan Shodangi.

Commerce

Professor : K. K. Das, B Com. (Lond.)
(Head of the Department).

Readers : 1. Mr. H. K. Datta, M.A., (Com.),

2. Dr. V. V. Ramanadham,
M.Com. (Hons.), Ph.D. (Lond.)

Lecturers : Four.

Pandit : 1. Sahitya Ratna G. S. Reddy.

Tutor : One (Vacant).

Physics

Honorary Professor : Sir C. V. Raman, Kt.,
M.A., Ph.D., D.Sc., LL.D., F.R.S., N.L.

Professor : K. Rangadhama Rao, M.A.
(Mad.), D.Sc. (Mad.), D.Sc. (Lond.),
(Head of the Department).

Readers : 1. Dr. J. Bhimasenachar, M.Sc.,
D.Sc.

2. Mr. R. Ramanadham.

Lecturers : Two.

Demonstrators : Six.

Geophysics

Professor : Dr. S. R. Savur, Ph.D. (Lond.).

Reader : Dr. B. Sundararama Rao, M.Sc.
(Hons.), D.Sc.

Lecturers : Four.

Demonstrators : Three.

Applied Physics

Reader : Mr. S. T. Krishnaswami Chetty,
M.A., M.Sc. (Lond.), (Head of the
Department).

Lecturers : Two.

Technicians : Two.

Demonstrators : One.

**Mathematical
Physics**

Professor : Dr. S. Meenakshisundaram, M.A.
D.Sc. (Head of the Department).

Readers : 2. Dr. T. Venkataryudu, M.A.,
Ph.D., 2 Vacant.

Lecturers : Three.

Demonstrator : One.

Chemistry

Professor: 1. Dr. G. Gopala Rao, M.Sc.,
D.Sc. (Allahabad), A.I.C.,
(Lond.), (Head of the Department).
2. Dr. Bh. S. V. Ragava Rao,
M.Sc., A.I.C., Ph.D. (Lond.),
A.I.I.S.C.
Reader: Three (Vacant).
Lecturers: Two.
Micro-Analyst: One.
Demonstrators: Seven.

**Chemical
Technology**

Professor: 1. Prof. C. Venkatarao, M.Sc.
(Hons.), D.I.C. (Lond.), (Head
of the Department).
Readers: 1. D. Sithapati Rao, B.A., B.Sc.
(Eng.).
2. Rao S heb C. J. Dasa Rao,
B.Sc. (Ag.), M.Sc. (Hons.).
3. Dr. M. Narasinga Rao, M.Sc.
(Hons.), D.Sc., A.R.I.C.

Lecturers: Four.
Demonstrators: Four.

Geology

Professor: Dr. C. Mahadevan, M.A., B.Sc.,
F.A.S.C., (Head of the Department).
Reader: Two (Vacant).
Lecturers: Three.
Demonstrators: Six.

Botany

Professor: Dr. J. Venkateshwarlu, D.Sc.,
(Head of the Department).
Reader: Mr. P.V.V. Seshagiri.
Lecturers: Four.
Demonstrators: Three.

Zoology

Professor: Dr. P. N. Ganapathi, D.Sc.,
(Head of the Department).
Reader: One (Vacant).
Lecturers: Three.
Demonstrators: Three.

English

Professor: Prof. K. R. Srinivasa Iyengar,
M.A., D.Litt., (Head of the
Department).
Readers: 1. B. Muthuswamy, Esq., B.A.
(Hons.). 2. (Vacant).
Lecturers: Three.

**Department of
European
Languages
other than
English**

Reader : Mr. S. T. Krishnamachari, B.A.,
B. L., C.P.F. (Pairs), D.I.A. (Berlin),
(Head of the Department).

**Department of
Law**

Professor : 2. 1. Prof. S. Venkata Raman,
B.A., M.L. (Head of the Department).
2. Vacant.
Readers : Three. Vacant.
Lecturers : Four.

Pharmacy

Professor : Mr. S. Rangaswami, D. Phil.,
(Pharm.) ; F.A.Sc. (Head of the De-
partment).
Lecturers : Four.
Micro-Analyst : One.
Pharmacist : One.
Demonstrators : Two.

Statistics

Professor : Dr. K. Nagabhushanam, D.Fil.
Lecturers : Two ; *Computational Assts.* : Two.

Administrations

- | | | |
|--------------------------|-----|---|
| (1) Deputy Registrar | ... | Mr. V. Nagaraja Rao, B.A. |
| (2) Engineer ... | ... | Mr. T. V. R. Naidu, B.Sc.,
B.Sc. (Engg.) |
| (3) Hon. Librarian | ... | Mr. S. T. Krishnamachari, B.A.,
B.L. |
| (4) Librarian ... | ... | Mr. A. Ramakrishnarao, B.A.,
F.I.A. |
| (5) University Physician | ... | Mr. D. Gopalaswamy, M.B., B.S. |
| (6) Physical Director | ... | Mr. K. Sudarsanarao, B.A.,
Dip. in Phy. Edn. |

Colleges with Names of Principals

University Colleges, Waltair. Prof. K. Rangadhama Rao, M.A.,
D.Sc. (Mad.), D.Sc. (Lond).

Professional Colleges (6)

1. *Andhra Medical College Visakhapatnam.* Dr. M. D. Ananthachari, M.D.

2. *Government Training College, Rajahmundry.* Dr. C. B. Rao, M.Sc. L.T., Ph.D. (Lond).
3. *St. Joseph's Training College for Women, Guntur.* Sister Mary Stanislas, B.A., L.T.
4. *Agricultural College, Bapatla,* Mr. P. D. Karunakar, M.Sc. (Rutgers.), A.R.I.C.
5. *The College of Engineering, Kakinada.* Mr. R. Natesan, B.E, A.M.I.E.
6. *The Medical College, Guntur.* Dr. (Mrs.) Sarah J. Souri M.B.,B.S., Ph.D.

First Grade Colleges (18)

1. *West Godavari Bhimavaram College, Bhimavaram.* Mr. E. Lakshminatha Rao, M.A.
2. *Sir C. Ramalinga Reddy College, Eluru.* Mr. D. S. Subrahmanyam, M.A., B.Ed.
3. *The Gudivada College, Gudivada.* Mr. A. F. Thyagaraju, M.A. (Lond.).
4. *Government College for Women, Guntur.* Miss N. Ammani Ammal, M.A., L.T.
5. *Andhra Christian College, Guntur.* Rao Sahab Dr. T. S. Paulus, M.A., LL.D.
6. *Hindu College, Guntur.* Mr. V. Subba Rao, B.A. (Hons.).
7. *Pithapur Rajah's College, Kakinada.* Mr. A. S. Thyagaraju M.A.
8. *Andhra Jateeya Kalasala, Masulipatam.* Mr. S. T. G. Varadachari, M.A. Hons.
9. *Hindu College, Masulipatam.* Dr. M. Gourinadha Sastry, M.Sc., D.Sc.
10. *Venkatagiri Raja's College, Nellore.* Mr. K. Satchidanandam Pillai, M.A., L.T.

11. *Government Arts College, Rajahmundry.* Mr. K. V. Punnaiah
M.A. (Hons.), B.Ed.
12. *S. R. R and C. V. R. College, Vijayawada.* Mr. M.
Raghavacharyulu, M.Sc.
13. *Mrs. A. F. N. College, Visakhapatnam.* Mr. V. S. Somayaji,
B.A. (Hons.).
14. *M. R. College, Vizianagaram.* Dr. A. L. Narayan, M.A.,
D.Sc., F.I.P.
15. *S. K. B. Ramaswami College, Amalapuram.* Mr. P. Ramachandra
Rao, M.A.
16. *V. R. S. College, Chirala.* Dr. T. Rama Rao, M.A., Ph.D.
17. *Kavali College, Kavali.* Mr. M. Ramanuja Rao Naidu, M.A.
18. *S. S. N. College, Narasaraopet.* Mr. I. Ranganayakulu, M.A.,
L.L.B.

Second Grade Colleges (7)

1. *The Narasapur College, Narasapur.* Mr. Vanuguri Subba Rao,
M.Sc., B.Ed.
2. *P. B. N. College, Nidubrolu.* Dr. I. S. Peter, M.A., Ph.D.
3. *C. S. R. Sarma College, Ongole.* Mr. P. Ramamurti, M.A.
4. *Government Arts College, Srikakulam.* Smt. D. Damodaran,
M.A., L.T.
5. *The Tenali College, Tenali.* Mr. S. P. Ragland, M.A., L.T.
6. *A.M.A. College, Anakapalli.* Mr. S. Parthasaradhi Naidu,
M.A., L.T.
7. *Tenali College, Tenali.* Mr. S. P. Ragland, M.A., L.T.

Colleges for Oriental Studies

1. *Narasimha Sanskrit College, Chittigudur (Kistna Dt.),*
Mr. S. T. G. Varadachari, M.A.
2. *Sri Sarada Niketanam, Guntur,* Srimati M. Savithri Devi.
3. *S. V. J. V. Sanskrit College, Kovvur.* Mr. K. V. N. Appa
Rao, M.A.
4. *Sanskrit College, Nellore,* Mr. G. Hanumnath Sastry.
5. *Andhra Women's Sanskrit College, Rajahmundry.* Ubhaya-
bhasha Praveena Srimati B. Kamakshamma.

6. *Kota Lakshmayya Naidu Sanskrit College, Tenali.* Ubhaya, bhasha Praveena K. Subbaramayya.
7. *Maharajah's Sanskrit College, Vizianagaram.* Mr. T. Narasimhachari, M.A., L.T.
8. *Maharaja's Music College, Vizianagaram.* Dr. Dwaram Venkataswami Naidu, K. P.
9. *Bhavarannaraswami Sanskrit College, Ponnur.* Vidwan Ch. Satyanarayana Sastry.
10. *A. S. S. L. S. V. S. Patasala, Aukiripalli, Krishna Dist.* Mr. K. Somasekhara Sastry.

Number of Students in the University in 1952-53

Names of Colleges

I. University Colleges

	<i>Number of Students</i>
University College of Arts and Commerce, Waltair	379
Jeypore Vikrama Deo College of Science and Technology Waltair	318
Erskine College of Natural Sciences, Waltair ...	131
University College of Law, Waltair	271

II. Professional Colleges

Agricultural College, Bapatla	226
College of Engineering, Kakinada	396
Government Training College, Rajahmundry ...	107
Andhra Medical College, Viziagapatam	414
St. Joseph's Training College for Women, Guntur ...	32
Medical College, Guntur	122
A. C. College, Guntur (B.Ed. Section)	100
M. R. College, Vizianagaram (B.Ed. Section) ...	60

III. First Grade Colleges

West Godavari Bhimavaram College, Bhimavaram ...	1,347
Sir C. Ramalinga Reddy College, Ellore	1,081
Pittapur Raja's College, Cocanada	2,024
Andhra Christian College, Guntur	1,266
Hindu College, Masulipatam	1,693
Government Arts College, Rajahmundry	674
Maharaja's College, Vizianagaram	998
V. R. College, Nellore	1,588
Mrs. A. V. N. College, Vizagapat m	1,000

			No. of Students
Andhra Jateeya Kalasla, Masulipatam	...	...	512
S. R. R. & C. V. R. College, Bezwada	...	...	1,380
Hindu College, Guntur	...	...	2,167

IV. Second Grade Colleges

S. K. B. R. College, Amalapuram	...	...	361
V. R. S. College, Chirala	...	...	162
The Gudivada College, Gudivada	...	...	104
Government College for Women, Guntur	...	...	68
Kavali College, Kavali	...	...	184
S. S. N. College, Narasaraopet	...	...	180
The Narsapur College, Narsapur	...	...	309
P. B. N. College, Nidubrole	...	...	181
Government Arts College, Srikakulam	...	...	157
Tenali College, Tenali	...	...	458
C. S. R. S. College, Ongole	...	...	89
A.M.A. College, Anakapalli	...	...	70

V. Oriental Colleges

Narasimha Sanskrit College, Chittgudur	...	...	29
Sri Sarada Niketanam, Guntur	...	...	9
S. V. J. V. Sanskrit College, Kovvur	...	...	41
Sanskrit College, Nellore	...	...	16
Andhra Women's Sanskrit College, Rajuhmundry	...	...	49
Kota Lakshmayya Naidu Sanskrit College, Tenali	...	...	29
Maharajas Sanskrit College, Vizianagaram	...	...	70
S. B. Sanskrit College, Ponnur	...	...	37
M. R. Music College, Vizianagaram	...	...	16
A.S.S.L.S.V.S. Pathasala	...	...	10

Total ... 21,345

Number of Successful Candidates in the University Examinations of March-April 1953 and September 1952

S. No.	Name of Examination	No. of Candidates Examined	No. of Candidates Passed
1.	Matriculation ... March	2458	497
	Do. ... September	1333	362
2.	Intermediate ... March-April	5797	1626
	Examination in Arts and Science September	2,241	629

<i>S. No.</i>	<i>Name of Examination</i>	<i>No. of Candidates Examined</i>	<i>No. of Candidates Passed</i>
3.	Intermediate Examination in Science March ...	3,864	1261
4.	B.A. ... September ...	1,886	437
	... April ...	1,307	401
5	B.Sc.—Part I ... September ...	844	260
	... April ...	678	545
6	Do Part II ... September ...	119	74
	... April ...	913	423
7.	B.A. (Hons.)—Part I. September ...	362	140
	... April ...	98	58
8.	Do. Final September ...	26	17
9.	B.Sc. (Hons.) Part I:— April ...	85	77
	Other than Tech- April ...	82	65
	nology as Main. September ...	28	22
	Technology as April ...	26	18
	Main September ...	12	10
10.	B.Sc. (Hons.) Part II. April ...	91	89
11.	B.Pharm.—Part I. April ...	17	13
	September ...	2	1
12.	B.Com.—Part I April ...	523	305
	September ...	148	95
13.	Do. Part II April ...	478	229
	September ...	280	196
14.	Do. Part III April ...	1063	289
	September ...	514	133
15.	Do. (Hons.)— April ...	25	16
	Part I September ...	4	3
16.	B.Com. (Hons.)— April ...	34	24
	Final Part II. September ...	4	3
17.	M.Sc. ... April ...	57	47
18.	M.Co. Preliminary April ...	10	9
19.	Do. Final ... April ...	17	16
20.	B.Ed. ... March ...	343	314
21.	Biology (Medical) March ...	6	4
	December ...	16	10
22.	First M.B. & B.S. March ...	3	1
	(Whole examination) December ...	5	0

<i>S. No.</i>	<i>Name of Examination</i>	<i>No. of Candidates Examined</i>	<i>No. of Candidates Passed</i>
	Part I March ...	102	72
	December ...	39	34
	Part II March ...	152	66
	December ...	113	34
23.	Second M.B. & B.S. March ...	1	
	Whole Examination December ...	2	1
	Part I ... March ...	65	61
	December ...	48	41
	Part II ... March ...	48	28
	December ...	61	46
24.	Final M.B. & B.S. April ...	28	5
	Whole Examination December ...	35	5
	Part I ... March ...	37	31
	December ...	25	20
	Part II ... April ...	61	36
	December ...	56	32
25.	Diploma Examination in Medical Subjects. April ...	5	3
	December ...	4	2
26.	M.D. Degree Examination— ... December ...	12	3
27.	M.S. Degree Examination— ... April ...	18	3
28.	Admission Test to Bhasha Praveena Course—		
	Telugu Main ... March ...	137	92
	Oriya (Main) ...	6	2
29.	Oriental Title—		
	Preliminary ... March-April 53	163	96
	Preliminary and Final ... March-April 53	29	21
	Final ... March-April 53	107	67
	Certificate of Proficiency in Oriental Learning—		
	Music March ...	1	1
	...	24	
30.	Examinations in B.Sc. (Agriculture)		
	I B.Sc. (Agr.) September-Oct. 1952.	31	18

<i>S. No.</i>	<i>Name of Examination</i>		<i>No. of Candidates Examined</i>	<i>No. of Candidates Passed</i>
	March, April	1953	92	73
II B.Sc. (Agri.)	September-Oct.	1952	21	10
	March-April	1953	86	62
Final B.Sc. (Agri.)	September-			
	Oct.	1952	24	14
	March-April	1953	82	63
31. Law Examinations				
L.P.	September	1952	8	3
	April	1953	48	36
F.L.	September	1952	20	10
	April	1953	135	83
B.L.	September	1952	14	7
	April	1953	111	80
32. Engineering Examinations				
F.E. Part I	September-Oct.	1952	78	51
	March-April	1953	132	63
F.E. Part II	September-Oct.	1952	38	31
	March-April	1953	109	67
B.E. Part I (Civil)	September-Oct.	1952	26	16
	March-April	1953	55	41
B.E. Part I (Mech.)	September-Oct.	1952	16	10
	March-April	1953	29	19
B.E. Part I (Elect.)	September-Oct.	1952	11	6
	March-April	1953	23	22
B.E. Part II (Civil)	September-Oct.	1952	21	16
	March-April	1953	60	55
B.E. Part II (Mech.)	September-Oct.	1952	8	7
	March-April	1953	25	20
B.E. Part II (Elect.)	September-Oct.	1952	8	6
	March-April	1953	22	20

Benefactions

The total value of benefactions received by the University upto 1952-53 is Rs. 27,63,439-13-5.

X ENDOWMENTS

Abstract Statement of Endowments

Name of Endowment	Name of Donor	Total Value	Annual Income	Purpose
	General		Rs.	
1. Maharajah of Jeypore Endowment.	Sree Sree Mah arajah Dr. Vikrama Deo Varma Garu, Hon. D.Litt., (Andhra) Maharajah of Jeypore.	Rs. 1 lakh every year till a capital sum of Rs. 15 lakhs is paid independ- ently of the 1 lakh dona- tion.	1,00,000	To meet the recur- ring expenditure of the Jeypore Vik- rama Deo College of Science and Technology.
2. Maharajah of Bobbili Endow- ment.	Maharajah Sri Rao Sir Venkata Sweta Chala- pathi Ranga Row Ba- hadur, G.C.B.E., Maharajah of Bobbili.	Rs. 10,000	5,568	For encouragement of Telugu and Sanskrit Learning.

14. The Pharmaceutical Society.
15. The Athletic Association.
16. The Ceramics Association.
17. The Geographical Society.
18. The Jain Association.
19. The Sikh Association.
20. The Buddhist Association.
21. The International Students Association.
22. The Kerala Association.
23. The Tamil Association.
24. The Andhra Association.
25. The Kanada Association.
26. The Punjabi Association.
27. The Bengali Association.
28. The Rajasthani Association.
29. The Gujarati Association.
30. The Maharashtra Association.
31. The Oriya Association.
32. The Assamee Association.
33. The Bihari Association.
34. The Nepali Association.

Residence and Cost of Living

The University Regulations require every student of the University to reside in a University Hostel or, if he is a student of a constituent college, in a college hostel, unless allowed by the Vice-Chancellor or the Pro-Vice-Chancellor to reside with his parents or guardians under prescribed conditions. The majority of the students live in the hostels which are under the supervision of the Students' Residence Committee which deals with all questions relating to residence and social life in the Hostels. There are at present twelve hostels on the University grounds accommodating over three and a half thousand students and two more in the city accommodating over 200 students. All the hostels are under the care and management of Wardens, Chief Wardens and the Provost. Special care is taken of the health of boarders and qualified Medical Officers have been appointed for the purpose. Besides these hostels there are about ten approved lodges in which nearly one thousand students reside. All the approved lodges are also under the care and management of Wardens and Chief Wardens.

International House

With the increase in the number of foreign students in the

University, the University authorities have allotted one large fully equipped bungalow for the residence of foreign students coming for study in this University from many parts of the world, such as, Afghanistan, the Federation of Malaya, Nepal, Fiji, Ceylon, East Africa, Japan, the U. S. A., China, France etc. This International House is under the care and management of a Warden, Dr. R.S. Choudhuri. All facilities including medical aid are provided. The cost of living is a little higher than that in the other hostels.

The cost of living (which has gone up considerably) including tuition fees varies from Rs. 70 to Rs. 125 according to The Faculty to which a student belongs. The Students of the College of Oriental Learning and Theology are charged no fees for lodging, light, and service.

Finances of the Universities

At the close of the year the property and assets of the University amounted to Rs. 3,71,32,542-0-3, which mainly included :

- (i) Government Securities and shares in Joint Stock Companies amounting to Rs. 1,09,78,260-0-0.
- (ii) Capitalised value of the Perpetual Annuities and Pension payment order Rs. 6,17,204-11-4.
- (iii) Land and Buildings amounting to Rs. 1,39,35,783-0-1.
- (iv) Equipment, Machinery, tools, plants, books, furniture, etc., amounting to Rs. 71,09,464-2-0.

In the year 1951-52 the revenue receipts of the University from various sources amounted to Rs. 53,89,437-8-6 and the Revenue payment to Rs. 51,57,781-6-10 resulting in a surplus of Rs. 2,31,656-1-8. The total Revenue Receipts and Expenditure of the institutions under C. H. School Board amounted to Rs. 1,68,015-0-3 and Rs. 1,84,159-2-6 respectively resulting in a deficit of Rs. 16,144-2-3. The total General Fund capital receipts during the year from various sources came to Rs. 1,05,267-0-6 and the General Fund capital payments to Rs. 1,36,758-8-0. The amount of donations received during the year 1951-52 was Rs. 7,87,536-15-0 out of which a sum of Rs. 47,000-0-0 was for Endowment of Scholarships and Prizes; Rs. 3,251-13-0 for general purposes; and Rs. 7,37,285-2-0 for special objects.

Provident Fund

Every permanent employee of the University, receiving a salary of Rs. 20 and more per mensem is required to subscribe to the Provident Fund at the rate of $6\frac{1}{4}$ per cent, and the University also contributes at the same rate.

Women's Education

There is a separate college for women which offers instruction upto the B.A. standard in the Faculty of Arts and upto the Intermediate standard in the Faculty of Science. They are given physical training also.

The students reside in the Khatau Makanji Hostel and in the New Hostel.

Information Bureau

The University has established an Information Bureau for advising students who wish to go abroad. Attempts have been made to collect information about many Universities and institutions in the United Kingdom and America.

Provision for Safeguarding Health, Medical Inspection, Discipline, etc.

There are medical officers in the University who reside in quarters assigned to them. They are not only required to attend to the medical needs of the residents in the University area but are also required to undertake the medical examination of the boarders of the University once a year.

The University maintains extensive play grounds covering 300 acres of land furnishing ample facilities for football, cricket, tennis and other games. The gymnasium is equipped with all necessary fitting and facilities and a big stadium offers facilities for general Track Athletics and other sports as well.

For maintaining discipline among students, the University has appointed a Chief Proctor and Proctors under him, who control the discipline of the students and decide their disputes, etc., under certain rules and regulations. There are special rules of discipline for women students.

National Cadet Corps

With the sanction of the Government of India the University has started a Training Centre of the National Cadet Corps. Nearly 625 students are given military training. There are 14 instructors under the direct supervision of one Officer Commanding and a few Majors and Captains under him appointed from among the teaching staff of the University.

Admission to the University Degrees and Examinations

The University offers the following degrees and diplomas :—

(1) Faculty of Oriental Learning :

- (a) Degree of Shastri ;
- (b) Degree of Shashtracharya.

(2) Faculty of Theology :

- (a) Degree of Veda Shastri,
- (b) Veda Shashtracharya,
- (c) Karm Kand Shastri,
- (d) Diploma in Paurohitya.

(3) Faculty of Arts (Degrees) ;

- (a) B.A.,
- (b) B.Com.,
- (c) M.A.,
- (d) M.Com.,
- (e) Ph.D.,
- (f) D.Litt.
- (g) B.Ed.,
- (h) M.Ed.,
- (i) Diploma in
 - (i) German,
 - (ii) French,
 - (ii) Chinese,
 - (iv) Clinical Psychology.

(j) Certificates in

- (i) Hindi,
- (ii) Bengali,
- (iii) Telugu,
- (iv) Gujarati,
- (v) Statistical Method.

(4) Faculty of Science (Degrees)

- (a) B.Sc.,
- (b) M.Sc.,
- (c) Ph.D.,
- (d) D.Sc.

(5) Faculty of Technology (Degrees)

- (a) B.Sc. (Engineering).
- (b) B.Sc. (Mining).
- (c) B.Sc. (Metallurgy).
- (d) B.Sc. (Fuel Technology).
- (e) B.Sc. (Industrial Chemistry).
- (f) B.Sc. (Chemical Engineering).
- (g) B.Sc. (Glass and Ceramics).
- (h) M.Sc. (Glass) Tech.
- (i) M.Sc. (Ceramics) Tech.
- (j) B.Pharm.
- (k) M.Pharm.
- (l) B.Sc. (Agri.).
- (m) M.Sc. (Agri.).
- (n) Ph.D.
- (o) D.Sc.
- (p) Diploma in Soap Manufacture.

(6) Faculty of Law (Degrees) :

- (a) LL.B.
- (b) LL.B. Hons.
- (c) LL.M.
- (d) LL.D.

(7) Faculty of Medicine and Surgery (Ayurveda) :

- (a) A.M.S. (Ayurvedacharya Modern Medicine & Surgery)

(8) Faculty of Music and Fine Arts :

- (a) Sangitalankar,
- (b) Sangitacharya.

Courses of Study

Praveshika Examination.—The examination is held for admission of students to the courses of study under the Faculties of Oriental Learning and Theology. The subjects for the examination are: (1) Sanskrit, (2) a Modern Indian Language, (3) Mathematics, (4) History and Geography, or further course in Sanskrit Grammar and Literature, (5) Elementary

Logic and if chosen, one of the following :—English, Drawing and Manual Training, Agriculture and Surveying.

Madhyama Examination.—Those who have passed the Pravesika or an equivalent examination are admitted to the Intermediate (Madhyama) courses. The course of study extends over a period of three years. Candidates are examined in (Sanskrit Language) a Modern Indian Language and any one of the following subjects: Advanced Sanskrit Grammar and Literature, a School of Indian Philosophy, Hindu Law and Jurisprudence, Hindu Astronomy and Mathematics and Purana.

Examination for the Degree of Shastri.—This is a three years' course after passing the Madhyama Pariksha. Candidates are examined in Sanskrit Language and Literature, a Modern Indian Language and Literature and one of the following subjects :—Advanced course in Sanskrit Grammar, Advanced course in Sanskrit Literature, Advanced course in the Vedas and Vedic Sanskrit, A School of Indian Philosophy, Hindu Law and Jurisprudence, Hindu Astronomy and Mathematics. A further course in Purana, History Palaeography and Epigraphy, Prakrit and Pali and English.

Examination for the Degree of Shashtracharya.—This is a thesis examination which may be taken up by the candidate three years after passing the Shastri Examination in one of the subjects prescribed for the Shastri examination. As in all advanced examinations, there may also be an examination, written, oral or both.

Faculty of Theology

Admission is restricted to Hindus

The Madhyama Pariksha.—It is a course of study extending over three years including Sanskrit (Sruti, Smriti, Purana and Itihasa), Grihya Sutra, Elementary Jyotisha, Dasakarma Paddhati (Rituals and Ceremonies). Candidates who have passed the Pravesika or an equivalent examination are admitted to these courses.

Degree of Vedashastri.—This is more like an examination in Rituals of Hindu Religion and is a course spreading over three years and is open only to those who can study the same according to the accepted usage of the community.

Sri Vavilla Venkateswara Sastrilu Garu, Telugu (or Sanskrit) Prize, Maddipati Ganeshwara Rao Studentship ; R. I. Lazaras Prize ; Major S. R. Sarma Scholarship ; S. S. Bhatnagar Prize ; Kala Prapurna Chilakamarthi Lakshminarasimham Prize ; Palukuri Nooka Raju Memorial Prize.

Madabhushi Ranganatha Padmavathi Prize ; Srimathi Pentapati Venkaturamanamma Memorial Prize ; Sri Bolla Venk turatnam Prize ; Srimathi Maddipati Venkataramanamma Prizes ; The Andhra Bank Silver Jubilee Prize ; Dr. Cattamanchi Ramalinga Reddy Fellowships ; Pushpa Rangaswamy Ayyanagar Memorial Prize ; Lakkaraju Sarabhayya Mahalakshamma Medal ; Srimathi Kanumilli Venkatanarasamma Prize ; Kanumilli Jaggarayudu Prize ; K. S. Gupta Memorial Prize ; Sri Sangeetha Ratnakara Sangitha Kalanidhi Dwaram Venkataswamy Naidu Prize ; Vasireddi Saktiswarudu Garu Prize ; Vasireddi Mangamma Garu Prize ; Vavilla Venkateswar Sastrulu Garu Telugu or Sanskrit Prize ; Dr. N. S. Subbarao Memorial Prize ; Veeresalingam Rajyalakshmi Memorial Prize ; Shri T. V. Raghaviah Insurance Prize.

Enclosure

Budget

The University depends on Government grants to meet the routine expenditure.

The following recurring and non-recurring grants have been sanctioned by the Madras Government.

Recurring—

- (i) An annual contribution of Rs. 1.50 lakhs.
- 1930 (ii) Recurring grants of Rs. 39,600 towards the cost of employment of Professors and Readers in the Natural Science College.
- 1945 (iii) Recurring grant of Rs. 1,17,400 towards cost of revising the scales of pay of the teaching staff in the University Colleges.
- 1948 (iv) Recurring grant of Rs. 42,400 in respect of Meteorology Department.
- 1951 (v) Recurring grant of Rs. 20,300 for Post-graduate course in Geophysics.
- 1952 (vi) Recurring grant of Rs. 18,000 for Electro-Chemical Technology.

- (vii) Recurring grant of Rs. 1,700 for Institution of a Diploma Course in Hindi.

Besides the above grant, the Govt. of India sanctioned a recurring grant to the maximum of Rs. 80,000 for the Technology and Pharmacy Departments.

Non-recurring—

- 1930 (i) An endowment grant of 27 lakhs.
 (ii) Non-recurring grant of 7½ lakhs for buildings and Equipment of the University.
 1940 (iii) Non-recurring grant of Rs. 3,50,000 towards institution of Erskine College of Natural Sciences.
 1942 (iv) Non-recurring grant of Rs. 3.16 lakhs towards cost of construction of Administration Building.
 1948 (v) Hall grant towards M.Sc. Geophysics subject to a maximum of 1.50 lakhs.

1949-50

	Rs.
(vi) For Meteorology Observatory and Equipment	3,00,000
(vii) For Gas tank	30,000
(viii) For Construction of Hostel	3,30,000
(ix) For Library equipment	20,000

1950-51

(x) For Construction of Utsavarangam ..	2,50,000
(xi) For bringing Laboratories up-to-date ..	2,00,000

1951-52

(xii) For bringing Laboratories up-to-date ..	1,50,000
(xiii) For Post-graduate courses in Geology ..	85,600
(xiv) For Silver Jubilee grant for Applied Physics	6,00,000

1952-53

(xv) For Post-graduate courses in Pure Applied Geology.	80,000
(xvi) For Electro Chemical, Technology as one of the special subjects in Honours Course	70,000
(xvii) For Diploma Course in Hindi	2,500

The Government of India sanctioned payment of the following grants towards the implementation of the Development

Plan of the Jeypore Vikarama Deo College of Science and Technology.

Capital Grant—

					Rs.
(i)	For buildings	..	..	..	60,000
(ii)	For equipment	..	..	..	10,000
1948-49					
(i)	For Buildings	..	..	..	75,000
(ii)	„ Equipment	..	..	..	1,00,000
1949-50	Grant for Technology	..	..	..	1,00,000
1950-51—					
	Buildings	..	..	..	50,000
	Equipment	..	..	..	60,000
1952-53—					
	Building	..	..	..	1,00,000
	Equipment	..	..	..	90,000
	Recurring Grant	..	..	..	1,08,000
	For equipping, Physics, Chemistry, Botany and Zoology Deptt.	..	..	..	50,000
	For equipment in Geology and statistics Deptt.	..	..	..	62,000
	For founding a Professorship in Sanskrit	..	..	..	3,00,000

In 1938 the Government donated to the University and handed over an extent of 34 acres 11 cents of land in the Forest Compound (Government Property) for the use of the University for building purposes and placed at the disposal of the University.

Provident Fund

Members of the University Staff, excluding the Vice-Chancellor, drawing a salary of Rs. 20 and above per mensem are members of the University Provident Fund. The menials are eligible for gratuity at the time of their retirement.

Degrees and Titles

The following are the Degrees instituted in the University :—

Faculty of Arts—

Bachelor of Arts (B.A.).

Bachelor of Arts Honours (B.A. Hons.).

Master of Arts (M.A.)
Master of Arts in International Relations with branches in
Diplomacy and Consular Functions.
Master of Arts Honours (M.A. Hons.).
Doctor of Philosophy (Ph.D.).
Doctor of Letters (D.Litt.).

Faculty of Commerce—

Bachelor of Commerce (B.Com.).
Bachelor of Commerce Honours (B.Com. Hons.).
Master of Commerce (M.Com.)
Master of Commerce Honours (M.Com. Hons.).
Doctor of Philosophy (Ph.D.).

Faculty of Agriculture—

Bachelor of Science in Agriculture (B.Sc., Ag.).
Master of Science in Agriculture (M.Sc., Ag.).

Faculty of Science—

Bachelor of Science (B.Sc.).
Bachelor of Science in Social Studies (B.Sc.) (S.S.).
Bachelor of Science, Honours (B.Sc., Hons.).
Bachelor of Pharmacy.
Master of Science (M.Sc.).
Master of Science in Statistics.
M. Sc. Degree in Electronics
Master of Science in Applied Geology.
Master of Pharmacy.
Doctor of Science (D.Sc.).

Faculty of Teaching—

Bachelor of Education (B.Ed.).
Master of Education (M.Ed.).

Faculty of Medicine—

Bachelor of Medicine and Surgery (M.B. & B.S.).
Doctor of Science (D.Sc.).
Doctor of Medicine (M.D.).
Master of Surgery (M.S.)
Bachelor of Science.
Master of Science (M.Sc.).
Post-graduate Diploma in Medical Subjects.

Faculty of Law—

Bachelor of Laws (B.L.).
Master of Laws (M.L.)
Doctor of Laws (D.L.).

Faculty of Oriental Learning—

Title in Oriental Learning (Vidya Praveena.)

Title in Oriental Learning (Bhasha Praveena).

Certificate of Proficiency in Oriental Learning (P.O.L.).

Master of Oriental Learning (M.O.L.).

Kala Prapurna (K P.). Honorary Doctorate Degree.

Faculty of Ayurveda—

Bachelor of Ayurveda (B.A.V.)

Faculty of Fine Arts—

Diploma in Music.

The Degrees of D.Litt., LL.D. and D.Sc. may also be conferred as Honorary Degrees.

Courses of Study for the Several Examinations

Admission to courses of study in the University is granted to those who have passed the Matriculation Examination of this University or that of any other University recognised as equivalent thereto.

B. Students who have passed the Intermediate Examination of the Andhra or of any recognised University are eligible for admission to the Honours and other degree courses of the University.

C. Students who have passed the Bachelor's Degree Examination of the Andhra or of any recognised University are eligible for admission to the Bachelor of Education course of the University.

I. Matriculation Examination.

(a) Courses and Papers:—

Part I. (i) English (2 papers).

(ii) A Second Language (1 Paper). (Any one of the following languages: Sanskrit, Arabic, Persian, French, German, Telugu, Kannada, Tamil, Oriya, Bengali, Hindi, Urdu, Marathi, Malayalam).

(iii) Elementary Mathematics (one paper).

Part II. Any two subjects from either of the Branches (1 Paper in each subject).

Branch-A :—

(1) Mathematics (Advanced Algebra and Geometry), (2) Physics, (3) Chemistry, (4) Botany, (5) Biology, (6) Physiology and Hygiene, (7) Household Arts and Science.

Branch-B :—

(1) Mathematics (Advanced Algebra and Geometry) (2) Indian History, (3) British History, (4) Civics, (5) Geography, (6) Music, (7) Household Arts and Science.

(b) Marks qualifying for a pass in each subject :

(i) 40 per cent. in English and 35 per cent. in each of the remaining subjects.

(ii) first class 60 per cent. and above ; second class 50 per cent. and above ; and third class rest.

III. *Intermediate Examination in Arts and Science*—(I.A.Sc.).

(a) Duration—two years.

(b) Courses and Papers—

Part I.—English (3 papers).

Part II.—A Second Language (2 papers) (Any one of the following languages,—Sanskrit, Latin, Arabic, Persian, Pali, French, German, Telugu, Kannada, Tamil, Malayalam, Oriya, Hindi, Urdu, Bengali).

Part III.—Optional Subjects.

Any three of the following from prescribed combinations—

- (1) Mathematics.
- (2) Physics.
- (3) Chemistry.
- (4) Botany.
- (5) Zoology including Human Physiology.
- (6) Biology.
- (7) Geography.
- (8) Psychology.
- (9) Geology.
- (10) Logic.
- (11) Indian History.
- (12) British History.
- (13) Civics and Indian Administration.
- (14) An advanced language—Classical—or Modern Indian or English.
- (15) Economic Geography and Economic History.
- (16) Economics and Banking.
- (17) Accountancy and General Commercial Knowledge.
- (18) Agriculture.

- (19) Electrical Engineering.
- (20) Mechanical Engineering.
- (21) Surveying.
- (22) Drawing.
- (23) Music.
- (24) Household Arts and Sciences.

There will be three papers of Mathematics of which the first two papers shall be of $2\frac{1}{2}$ hours duration each and the third of 2 hours duration.

There will be two papers in each of the Arts subjects. Each paper will be of $2\frac{1}{2}$ hours duration except in Music in which the paper will be of 3 hours duration.

There will be two papers in theory each of three hours duration in each of the Science subjects.

(c) Marks qualifying for a pass in—

- (i) each subject under Part I, Part II and Part III 35 per cent.
- (ii) first class 50 per cent. and above ; second class 35 per cent. and above.

III. *The I.Sc. course has been abolished with effect from July 1952*

The last Examination will be held in September 1953.

III. *Intermediate Examination in Sciences (I.Sc.).*

- (a) Duration—two years.
- (b) Courses and Papers—
Part I.—English papers (2).
Part II.—A second language (1 paper).

(Any three of the following languages—Sanskrit, Latin, Arabic, Persian, Pali, French, German, Telugu, Kannada, Tamil, Malayalam, Oriya, Hindi and Urdu).

Part III.—Optional Subjects—

(Any one of the following from prescribed combinations provided that no one shall offer Biology along with either Botany or Zoology :—(1) Mathematics, (2) Physics, (3) Chemistry, (4) Botany, (5) Zoology, including Human Physiology, (6) Biology,

(7) Geology, (8) Geography, (9) Agriculture, (10) Household Arts and Sciences.

Mathematics—3 Papers (1 common with I.A.Sc.)—Two papers—2½ hours. Third paper—2 hours.

Other subjects—Theory—2 Papers 3 hours. Practical—1 Paper—3 hours.

Marks qualifying for a pass in—

(i) each subject under Part I, Part II and Part III. 35 per cent.

(ii) first class 50 per cent. and above, second class 25 per cent. and above.

IV. *B.A. Degree Examination—*

(a) Duration—Two years.

(b) Courses and Papers—

Part I.—English Language and Literature (4 Papers).

Part II.—(A Second Language (2 Papers) Any one of the following languages—Sanskrit, Latin, Arabic, Persian, Pali, French, German, Telugu, Kannada, Tamil, Malayalam, Oriya, Hindi, Urdu, Bengali.)

Part III—One of the following Optional Groups.

Group (i) Mathematics.

Group (ii) (A)—Physics Main with Chemistry or Mathematics Subsidiary.

Group (ii) (B)—Chemistry Main with Physics Subsidiary.

Group (ii) (C) Botany Main with Zoology or Geology as subsidiary

Group (ii) (D)—Zoology Main with Botany or Geology as subsidiary.

Group (ii) (E)—Geology Main with Botany or Zoology is subsidiary.

Group (iii) Philosophy.

Group (iv) History and Economics (History Main).

Group (v) History and Economics (Economics Main).

Group (vi) One of the following—

(1) Sanskrit and Early Indian History.

(2) Pali and Early Indian History or Sanskrit.

(3) Arabic or Persian and Early Muslim History.

(4) Urdu and Indian History (Muslim Period) or Arabic or Persian.

(5) Dravidian Language or Oriya and a related subject or Sanskrit.

- (6) Hindi and Mediaeval History of North India or Sanskrit.
 (7) English.

Group (vii) Music.

- (c) Marks qualifying for a pass in—
 (i) Each subject under Part I, Part II and Part III: 35 per cent.
 (ii) first class 60 per cent. and above; second class 50 per cent. and above; third class 35 per cent. and above.

V. *B.A. Honours Degree Examination—*

- (a) Duration: Three years (after Intermediate).
 (b) Courses and Papers—
 Preliminary—
 (1) English—3 hours.
 (2) Translation—2 hours.

Final—(One of the following Branches):

- Branch I.—Mathematics (9 papers).*
Branch II.—Philosophy (8 papers).
Branch III.—History and Politics (8 papers).
Branch III-A.—Economics (8 papers).
Branch IV.—English Language and Literature (10 papers).
Branch V.—Telugu Language and Literature (8 papers).

- (c) Marks qualifying for a pass in—
 (i) each subject under Preliminary and Final 40 per cent.
 (ii) first class 60 per cent. and above; second class 50 per cent. and above; third class 40 per cent. and above.

VI. *B.Com. Degree Examination—*

- (a) Duration—Two years.
 (b) Courses and Papers—
 Part I.—English (1 paper).
 Part II.—Hindi (1 paper).
 Part III.—The following compulsory subjects, viz.—

- | | |
|---|-----------|
| (1) Commercial Practice and Correspondence. | } Group A |
| (2) Commercial Geography. | |
| (3) Book-keeping and Accounts. | |
| (4) Mercantile law. | |
| (5) General Economics. | } Group B |
| (6) Theory and Practice of Banking | |
| (7) Business Organization. | |

And any one of the following subjects, viz.

- (1) Advanced Accounting and Auditing.
- (2) Currency and Exchange.
- (3) Transport.
- (4) Statistics and their application commerce.
- (5) Recent Economic History of England, Germany, Union of Socialist Soviet Republic, United States of America, Japan and India.
- (6) Principles and Practice of Co-operation.
- (7) Insurance.

The first four of the compulsory subjects come under Group A, and the remaining including the optional subject come under group B. Total number of papers : Nine.

(c) Marks qualifying for a pass in—

Parts I and II.—Not less than 35 per cent of the marks in each Part.

Part III—

- (i) not less than 30 per cent. of the marks in each of the subjects under Groups (A) and (B) and 35 per cent of the total number of marks; A candidate not satisfying this rule will nevertheless be declared to have passed in one group provided he obtains not less than 30 per cent in each of the papers of that group and not less than 35 per cent of the total number of marks in that group.
- (ii) first class 60 per cent and above; second class 50 per cent and above; and third class 35 per cent and above. The first class and second class in Part III will be given only to those who pass both Groups A and B at one and the same examination.

VII. *B.Com. (Hons.) Degree Examination—*

- (a) Duration—Three years (after Intermediate).
- (b) Courses and Papers

Part I.—Preliminary Examination (at the end of the first year).

- (1) English Composition (1 paper).
- (2) Translation (Hindi) (1 paper).

Parts II—Final Examination. One paper on each of the subjects 1 to 7.

- Part II (1) Economic Theory-Value, Production,
Distribution and Consumption.
(2) Commercial Geography.
(3) Accounting.

Part II-B—(1) Industry and Trade.

- (4) Business Administration.
(5) Mercantile Law.
(6) Economic and Business Statistics.
(7) Money and Banking.
(8) Special subject :—Any one of the following subjects :
(2 papers)
(a) Advanced Accountancy and Auditing.
(b) Currency and Exchange.
(c) Economics of Transport.
(d) International Trade.
(e) Recent Economic History of England, Germany,
U. S. A., Japan, U. S. S. R., India and Italy.
(f) Insurance.

(c) Marks qualifying for a pass in—

Part I—

not less than 35 per cent in each of the subjects, (*i.e.*,
English and Translation.)

Part II—

- (i) not less than 30 per cent in each compulsory subject,
33 % in the special subject, and 40 per cent in
the aggregate.
(ii) first class 60 per cent and above ; second class 50
per cent and above and third class 40 per cent
and above.

VIII. *B.Sc. Degree Examination in Agriculture (B.Sc. Ag.)*

1. Candidates for the degree of Bachelor of Science in Agriculture (B.Sc. Ag.) shall be required :

- (a) to have passed the Intermediate Examinations in Arts and Science of this or other Universities, having offered as optional Chemistry and any two of the following subjects ;

- (i) Mathematics.
(ii) Physics.
(iii) Biology.
(iv) Botany.
(v) Natural Science,

(vi) Zoology including Human Physiology.

(vii) Agriculture.

or any examination accepted by the Syndicate as equivalent thereto.

2. Courses of study in Agriculture :

Duration—3 years including a course of practical farm training for a period of six months in an Agricultural Research Station or approved private farm in the state.

Subjects of study :

- (i) Agronomy.
- (ii) Agriculture Botany.
- (iii) Agricultural Chemistry.
- (iv) Agricultural Zoology.
- (v) Agricultural Engineering.
- (vi) Animal Hygiene.
- (vii) Horticulture.

3. The first examination shall be held at the end of the first year of the course of study and shall be in the following subjects :—

- (i) Agronomy.
- (ii) Botany.
- (iii) Chemistry.
- (iv) Zoology.
- (v) Agricultural Engineering (Civil).

4. The second examination shall be held at the end of the second year of the course of study and shall be in the following subjects :—

- (i) Agriculture-Plant Husbandry.
- (ii) Agricultural Engineering (Mechanical).
- (iii) Agricultural Entomology.
- (iv) Agricultural Botany.
- (v) Agricultural Chemistry.
- (vi) Animal Hygiene.

5. The final examination shall be held at the end of the third year of the course of study and shall be in the following subjects :—

- Subjects for the Final examination
- (i) Agronomy I—Agricultural Economics including Co-operation and propaganda.
 - (ii) Agronomy II—Animal Husbandry and Farm Management.
 - (iii) Agricultural Chemistry.
 - (iv) Horticulture.
 - (v) Agricultural Botany.
 - (vi) Agricultural Entomology.

6. (i) A candidate shall be declared to have passed the first, second and final examinations, if he obtains not less than 40 per cent of the marks in each of the subjects prescribed for each of the above examinations.

(ii) A candidate who obtains 40 per cent in any subject in the first, second and final examinations, and 33% each in theory and practical in that subjects shall be declared to have passed in that subject.

7. First class 60 per cent and above of the total marks. Second class 50 per cent and above.

IX. *B.Sc. Degree Examination*—(Faculty of Science.)

(a) Duration: Two years.

(b) Courses and Papers.

Part I.—English.

Part II.—Mathematics Main (6 papers).

Physics Main (6 papers).

Chemistry Main (6 papers).

Botany, Zoology or Geology Main (6 papers).

Physiology Main (5 papers).

Mathematics Subsidiary.

Physics Subsidiary.

Applied Physics Subsidiary.

Chemistry Subsidiary.

Botany Subsidiary.

Zoology Subsidiary.

Geology Subsidiary.

Physiology Subsidiary.

(c) Marks qualifying for a pass in.—

(i) each subject under Parts I and II, 35 per cent.

(ii) first class 60 per cent and above ; second class 50 per cent and above ; and third class 35 per cent and above.

X. *B.Sc. Honours Degree Examination*—

(A) *With Mathematics and Mathematical Physics.*

(B) *With Physics or Chemistry as Main Subject.*

(a) Duration: Three years.

(b) Courses and Papers.

Part I.—(1) General English.

(2) Translation.

Part II (*Mathematics and Mathematical Physics* (7 papers).
No subsidiary.

Physics Main (10 papers).

Chemistry Main (9 papers).

Physics Subsidiary to Chemistry Main.

Chemistry Subsidiary to Physics Main.

Mathematics Subsidiary for Physics Main.

Mathematics Subsidiary for Chemistry Main.

As in the case of Main Subject, classes are also assigned to the Subsidiary Subjects in accordance with the marks secured as shown below.

(C) *With Chemical Technology as Main Subject—*

(a) Duration: Three years.

(b) Courses and Papers.

The Courses shall comprise institution in—

Part I.—(a) Mathematics, (b) Physics, (c) Chemistry, and (d) General Engineering including Machine Drawing and Workshop Practice.

Part II.—Chemical Technology, Chemical Engineering and any one of the following special subjects for the study of which provision may be made by the University:—

(i) Sugar.

(ii) Pharmaceuticals and Fine Chemicals.

(iii) Oils and Fats (including essential oils).

(iv) Ceramics and

(v) Electro-Chemical Technology.

Pharmaceutical Botany in the case of candidates offering Pharmaceutical and fine Chemicals as Special subject under Part II.

(D.) *With Botany or Zoology or Geology as Main Subject—*

(a) Duration: Three years.

(b) Courses and Papers—

Part I.—(a) English and (b) a Simple Course in French or German.

Part II.—Any one of the following branches of knowledge.

(i) Botany as the Main subject with Chemistry or Zoology or Geology as Subsidiary subject.

(ii) Zoology as the Main subject with Chemistry or Botany or Geology as Subsidiary subject.

(iii) Geology as the Main subject with Physics or Chemistry or Zoology or Botany as Subsidiary subject.

(c) Marks qualifying for a pass—

A candidate shall be declared to have passed the Part I examination if he obtains not less than 40 per cent in each of the papers in English and Translation. All other candidates shall be deemed to have failed in the Examination. Successful candidates obtaining not less than 60 per cent shall be declared to have passed with distinction in that subject.

A candidate shall be declared to have passed the B.Sc. (Honours) Degree examination if he has obtained not less than 40 per cent of the total marks in the Main subject and 40 per cent of the total marks in the Subsidiary subject under Part II, provided however, no candidate shall be deemed to have passed, in the Main subject under Part II unless he gets not less than 33 per cent of the total marks in each of the two divisions of the Main subject, *viz.*, (i) Theory of the Main subject, (i) Practicals of the Main subject, including the practical records submitted and *viva voce*.

(d) Classification of successful candidates.

First class not less than 60 per cent ; second class not less than 50 per cent ; Third class not less than 40 per cent of the total marks.

XI. B. Pharm. Degree Examination

Regulations

1. A candidate for the B.Pharm. degree shall be required
 - (i) to have passed the I.Sc. examination of this University (with Physics and Chemistry as two optional subjects and either Mathematics, Biology, Botany or Zoology as the third optional subject) or any other examination recognized by the Academic Council as equivalent thereto.
 - (ii) to have undergone subsequently a course of study in the University College as prescribed hereunder extending over a period of 3 academic years each consisting of 3 consecutive terms.
 - (iii) to have passed the examination for the degree here in after prescribed, and
 - (iv) to have undergone at least one month's practical training in a hospital pharmacy, drug store or pharmaceutical works, either during the course of

immediately after its completion and before the degree is awarded.

XII. *Post-Graduate and Research Degrees*

1. *Master of Arts (M.A.)*

1. A candidate who has qualified for the B.A. (Honours) Degree of the University by passing the prescribed Examination under the Regulations may without further examination but upon payment of the prescribed fee, proceed to take the M.A. Degree of the University at any Convocation subsequent to his taking the B.A. (Honours) Degree.

2. *Master of Arts in International Relations with branches in Diplomacy and Consular Functions*

Regulations

1. Candidates for the Degree of Master of Arts in International Relations, M.A. (Inter. Rel.) shall be required—

- (i) to have passed (a) the B.A. (Hons.) Degree Examination with Branch II—History and Politics or Branch III-A Economics or (b) the B. L. Degree Examination after undergoing the three years' course or (c) the B. L. Degree Examination after undergoing the two years' course and having taken the B.A. Degree Examination with Group IV—History Main or Group V—Economics Main, of this University.

Or

the B.A. (Hons.) or the B.A. and B.L. Degree Examinations with the above or identical optional subjects of any other statutory Indian University recognised by the Academic Council as equivalent thereto ;

- (ii) to have undergone subsequently a further course of study in the University Colleges as prescribed hereunder extending over a period of two years, each consisting of three consecutive terms and

- (iii) to have passed the Examination for the Degree hereinafter prescribed.

3. *Master of Arts (Hons.) M.A. (Hons.)*

1. The Degree of Master of Arts (Honours) is conferred on persons who have passed the B.A. (Hons.) Degree Examination of this University in first or second class or an examination of any other University recognised as equivalent to the above.

2. All candidates for the Degree of M A. (Hons.) are required to pursue in the University for at least two academic years an approved full-time course of research under the direction of the head of the department concerned or of a member of the University staff appointed by the Vice-Chancellor on his recommendation.

4. *Master of Commerce (M.Com.)*

1. A candidate for the Degree of Master of Commerce shall be required—

(a) to have passed the B.Com. (Hons.) or B.Com. (Pass) Degree Examination of this University or an examination of any other University recognised as equivalent thereto.

(b) to have undergone subsequently a further course of study in the University College of Commerce, extending over a period of one academic year consisting of three consecutive terms in the case of Honours graduates and two academic years each consisting of three consecutive terms in the case of Pass graduates.

3. (a) Degree of Master of Commerce (Honours) *M.Com. (Hons.) (By Research)*.

1. The Degree of Master of Commerce (Honours) is conferred on persons who have passed the M.Com. Degree Examination of this University in First or Second Class or an examination of any other University recognised as equivalent thereto.

2. All candidates for the Degree of M.Com (Hons.) are required to pursue in the University for a period of one academic year an approved full time course of research under the direction of the Head of the Department concerned or of a member of the University staff appointed by the Vice-Chancellor on his recommendation.

5. *Degree of Doctor of Philosophy (Ph.D.)*

1. The Degree of Doctor of Philosophy (Ph.D.) is conferred on persons who have passed the B.A. (Honours) Degree Examination or M.A. (Honours) Degree Examination or M.Com. Degree Examination or M.Com. (Hons.) Degree Examination of the University or an examination of any other University recognised as equivalent to the above, and who have satisfied the conditions laid down in the following paragraphs.

2. All candidates for the Degree of Ph.D. are required to pursue in the University for at least three academic years—the period shall be two academic years in the case of those who have already taken the M.A. (Honours) or M.Com. (Honours) Degree and shall be four academic years in the case of third class Honours graduates—an approved full time course of research under the direction of the Head of the Department concerned or of a member of the University staff appointed by the Vice-Chancellor on his recommendation.

6. *Degree of Master of Science (M.Sc.)*

1. The Degree of Master of Science (M.Sc.) is conferred on persons who have passed the B.Sc. (Honours) Degree Examination or B.A. (Honours) Degree Examination with Mathematics of the University or an examination of any other University, recognised as equivalent to the above.

2. All candidates for the Degree of M.Sc. are required to pursue in the University for at least one academic year, the period being two academic years in the case of a Third Class Honours or First and Second Class B.Sc. Pass Graduates, an approved full-time course of advanced study and research under the direction of the Head of the Department concerned or of a member of the University staff appointed by the Vice-Chancellor on his recommendation.

7. *Degree of Master of Science in Mathematical Physics.*

1. A candidate for the Degree of Master of Science in Mathematical Physics shall be required.

(a) to have passed the B.Sc. (Honours) Degree Examination with Mathematics or with Physics as the Main subject or B.A. (Honours) Degree Examination in Mathematics of this University or an examination

- of any other University recognised as equivalent thereto ;
- (b) to have undergone subsequently a further course of study in the University College, extending over a period of one academic year consisting of three consecutive terms ; and
- (c) to have passed the prescribed examinations.

8. *M.Sc. Degree in Statistics*

I. A candidate for the degree of Master of Science (Statistics) shall be required—

- (i) to have passed the B.A. (Hons.) Degree Examination in Mathematics or Economics with Mathematical Economics and Statistical Computations in Part II (Economics Honours) of this University or an examination of any other statutory University recognised as equivalent to either of these ; and
- (ii) to have completed a further course of study in the University Colleges for a period of two academic years consisting of three consecutive terms each ; and
- (iii) to have passed the prescribed examination.

8A. *Degree of Master of Science in Applied Physics.*

I. A candidate for the Degree of Master of Science in Applied Physics shall be required :—

- (a) to have passed the B.Sc. Pass or B.Sc. (Honours) Degree examination of this University with Physics as the Main subject or an examination of any other University recognised as equivalent thereto.
- (b) to have undergone subsequently a further course of study in the University College, extending over a period of one academic year consisting of three consecutive terms in the case of Honours Graduates and two academic years in the case of Pass Graduates.

9. *M.Sc. Degree Examination in Geophysics.*

A candidate for the M.Sc., Degree Examination in Geophysics may offer either Group I-Applied Geophysics or Group II-Meteorology. I. A candidate for the Degree of Master of Science in Geophysics—Group I Applied Geophysics shall be required—

- (a) to have passed the B.Sc., Pass Degree Examination with Physics or Geology as the main subject or the B.Sc. (Hons.) Degree Examination with physics or mathematics or geology as the main subject of this University or an examination recognised by the Academic Council as equivalent thereto,
- (b) to have undergone subsequently a further course of study in the University College extending over a period of two academic years each consisting of three consecutive terms, and
- (c) to have passed the prescribed examinations.

II A candidate for the degree of Master of Science in Geophysics—Group II—meteorology shall be required—

- (a) to have passed the B.Sc. Pass degree Examination with Physics as the Main subject or B.Sc. Honours Degree Examination with Physics or Mathematical Physics or Geology as the Main subject of this University or an Examination of any other University recognised by the Academic Council as equivalent thereto, provided that in the case of candidates whose Main subject is Geology, they should have taken Mathematics and Physics as subsidiaries.
- (b) to have undergone subsequently a further course of study in the University College, extending over a period of two academic years each consisting of three consecutive terms and
- (c) to have passed the prescribed examinations.

10. *Degree of Master of Science in Chemical Technology*
(*M.Sc. Chem. Tech.*)

1. A candidate for the Degree of Master of Science in Chemical Technology shall be required—

- (a) to have passed the B.Sc. (Honours) examination in the University with Chemical Technology as the Main subject ;
- (b) to have undergone subsequently the prescribed course of study in the University for a period of one academic year ;
- (c) to have passed the prescribed examination.

2. Each student for the Degree of Master of Science in Chemical Technology shall be required to undergo practical training

for at least two months in an approved chemical factory and under the direction of a competent person and shall submit through his Director at the factory report of the work done to the head of the department.

3. Courses: (i) Scientific German Translation, (ii) General economics and factory management, (iii) Sugar technology (iv) Pharmaceutics, (v) Chemical Engineering, (vi) Oil and forts, (vii) Ceramics.

11. *Degree of Master of Science in Chemistry with the Special subject Chemistry (including Microscopy) of Foods, Drugs and Water*

1. A candidate for the M.Sc. Degree in Chemistry with the special subject 'Chemistry (including Microscopy of Foods, Drugs and Water)' [M.Sc. Chemistry (special subject) Foods, Drugs and Water] shall be required:—

- (a) to have passed the B.Sc. (Honours) or the B.Sc. Pass Degree examination (with Chemistry as the Main subject) of this University or any other examination recognised as equivalent thereto; and two other Science subjects as subsidiary subjects;
- (b) to have undergone subsequently a further course of study in the University College, extending over a period of one academic year consisting of three consecutive terms, provided however that the period shall be two academic years in the case of Pass Graduates; and
- (c) and to have passed the prescribed Examination.

12. *M.Pharm. Degree Examination*

A candidate for the M.Pharm. Degree Examination may offer either Branch I—Food, Drugs and Water or Branch II—Manufacture of Pharmaceuticals and Fine Chemicals.

A. (1) A candidate for the degree of Master of Pharmacy—Branch I—Foods, Drugs and Water—shall be required.

- (a) to have passed the B.Pharm. Degree Examination of this University or an examination of any other University recognised by the Academic Council as equivalent thereto;

- (b) to have undergone subsequently a further course of study in the University College extending over a

period of one academic year, consisting of three consecutive terms ;

(c) to have passed the prescribed examinations.

B. (1) A candidate for the degree of Master of Pharmacy Branch II—Manufacture of Pharmaceuticals and Fine Chemicals—shall be required—

(a) to have passed the B.Pharm., Degree Examination of this University or an examination of any other University recognized by the Academic Council as equivalent thereto ;

(b) to have undergone subsequently a further course of study in the University College for a period of one academic year consisting of three consecutive terms ;

(c) to have passed the prescribed examinations ; and

(d) to have undergone practical training in an approved pharmaceutical works for a period of two months immediately after the close of the University Examinations.

13. *M.Sc. Degree Examination in Applied Geology*

1. Candidates for the degree of M.Sc. in Applied Geology shall be required

(a) to have passed B.Sc. degree examination in first or second class, or B.Sc. (Hons.) degree examination of this University, with Geology as the Main subject, or an examination of any other University recognized by the Academic Council as equivalent thereto ;

(b) to have undergone subsequently a further course of study in Applied Geology extending over a period of two academic years ; each consisting of three terms ordinarily consecutive ;

(c) candidates holding B.Sc. degree to spend a minimum of 4 weeks in geological mapping or in mines during Michaelmas and Christmas vacations during first year ;

(d) to spend at least six weeks in the intervening summer vacation between first and second year courses on field work or in mines or quarries approved by the syndicate ;

(e) to have passed the examination for the M.Sc. degree hereinafter prescribed.

14. *Degree of Doctor of Science (D.Sc.)*

1. The Degree of Doctor of Science (D.Sc.) is conferred on persons who have passed the Master of Science Degree examination of the University or an examination of any other University, recognized *as equivalent to the above and who have satisfied the conditions laid down in the following paragraph.

2. All candidates for the Degree of D.Sc. are required to pursue in the University for at least three academic years an approved full-time course of research under the direction of the head of the department concerned or of a member of the University staff appointed by the Vice-Chancellor on his recommendation :

Provided that, after completion of the first year of the course a candidate may be permitted to devote such periods as may be deemed advisable by the Vice-Chancellor to full-time research in other approved Universities or institutions, or at a place and under conditions approved by the University, while remaining under the direction of the University or of persons nominated by the University.

15. *Degree of Master of Science in Agriculture [M.Sc. (Ag.)]*

1. The Degree of Master of Science in Agriculture [M.Sc. (Ag.)] is conferred on persons who have passed the B.Sc. (Ag.) Degree examination of this University in at least second class or an examination of any other University recognised as equivalent thereto, and who have satisfied the conditions laid down in the following paragraphs.

2. All candidates for the Degree of M.Sc. are required to pursue for not less than two academic years in the Agricultural College, Bapatla, an approved full-time course of advanced study and research under the direction of the teacher concerned of that college approved by the Vice-Chancellor on the recommendation of the Principal.

B.Sc., M.Sc. and Post-Graduate Diplomas in Medical Subjects

16. *B.Sc. Degree in Bacteriology (B.Sc. Bact.)*

1. The University shall grant a B.Sc. Degree in Bacteriology

(B.Sc. Bact.) to candidates who have satisfied the University Regulations relating to the Degree.

2. Candidates for the Degree shall be required to have passed the M.B.B.S. or higher medical degree examination of this University or a similar examination of another approved University. Graduates in Sanitary, Veterinary and Pure Sciences are also eligible, provided they have met the other conditions prescribed for the Diploma.

Medical graduates, subsequent to graduation must have held an appointment as a House Surgeon for at least one year in a general or District Hospital, or served as a member of the staff of a medical college for at least one year, or produced satisfactory evidence of having been in general practice for at least two years.

Graduates in Veterinary Science should have worked for at least one year in Veterinary hospital and graduates in pure sciences must have worked for at least two years in a laboratory of their speciality before admission to the course.

The course of study shall extend for one year and include regular instruction in the following:—(i) General Technical methods ; (ii) General Bacteriology ; (iii) Bacteriological Chemistry ; (iv) Systematic Bacteriology ; (v) Viruses ; (vi) Comparative Pathology ; (vii) Bacteriological examination of water, milk and foods ; (viii) Immunology.

17. *Degree of Master of Science*

A graduate holding the degree of Bachelor of Medicine and Bachelor of Surgery of this University, or of any other University recognised as equivalent thereto, may present himself for the degree of Master of Science (M.Sc.) in any one of the following subjects:—

- (a) Anatomy.
- (b) Physiology.
- (c) Bio-Chemistry (Medical).
- (d) Pathology.
- (e) Bacteriology.
- (f) Pharmacology.
- (g) Forensic Medicine.

two years after having qualified for the above degree (M.B. & B.S.) and not earlier than one year from the date of registration or approval by the Syndicate for the purpose of pursuing research in accordance with the conditions laid down in regulation 2.

18. *Diploma in Venereology.* 19. *Diploma in Dermatology.*
20. *Diploma in Anaesthesia.* 21. *Diploma in Gynaecology and Obstetrics.* 22. *Diploma in Ophthalmology.*

23. *Diploma in Laryngology and Otology*

1. *Conditions of admission.*—Candidates for any of the above Diploma shall be required to have passed the M.B. B.S. Degree examination of this University, or an examination recognised by the Academic Council as equivalent thereto.

“No candidate shall be eligible to appear for the Diploma examination—

(a) Unless he has, subsequent to passing the M.B. & B.S. Degree examination or its recognised equivalent, held an appointment as a House-Surgeon for at least one year in a General Hospital, or served as a member of the staff of the Andhra Medical College for at least one year, or produced satisfactory evidence of having been in general practice for at least two years; and

(b) Unless he has subsequent to fulfilling the conditions mentioned in (a) above, undergone a course of study for the Diploma extending over a period of one year.”

24. *Degree of Doctor of Science (D.Sc.).*

1. The Degree of Doctor of Science (D.Sc.) is conferred on persons who have passed the Master of Science Degree Examination or the M.B. & B.S. Degree examination of the University or an examination of any other University recognised by the Academic Council as equivalent to the above and who have satisfied the conditions laid down in the following paragraphs.

2. Candidates for the Degree of D.Sc. are required to pursue in the University for at least three academic years an approved full-time course of research under the direction of the head of the department concerned or of a member of the University staff appointed by the Vice-Chancellor on the recommendation of the head of the Department.

Provided that, after completion of the first year of the course a candidate may be permitted to devote such periods as may be deemed advisable by the Vice-Chancellor to full-time research in other approved Universities or institutions, or at a place and under conditions approved by the Vice-Chancellor while remaining under the direction of the University or of persons nominated by the Vice-Chancellor.

XIII. *B.Ed. Degree Examination*

(a) Duration: One year.

(b) Courses and papers—

Part I (Written Examination)

<i>Days</i>	<i>Hours</i>	<i>Subjects</i>	<i>Marks</i>
First day ..	8 to 11	1. Theory and Practice of Education—I	100
Second day ..	Do.	2. Theory and Practice of Education—II	100
Third day ..	Do.	3. The Principles and Practice of Basic Education (including Pre-Basic) ..	100
Total number of marks for Part I ..			300

Part II (Written Examination)

<i>Days</i>	<i>Hours</i>	<i>Subjects</i>	<i>Marks</i>
Fourth day ..	8 to 11	4. Methods of Teaching—General	100
Fifth day ..	Do.	5. (i) Methods of Teaching—1—Special A. ..	50
	1½ hour for each subject.		marks for less each subject.
Sixth day ..	8 to 10	(ii) Methods of Teaching—Special B.	50

There will be one paper for each of the subjects under 'Special B'.

Total number of marks for Part II, 200 marks or 250 marks according as the number of special subjects chosen is 2 or 3.

Part III (Practical Test.)

	<i>At College Marks</i>	<i>At Examination</i>	
		<i>Time</i>	<i>Marks</i>
6. (i) Teaching Practice Each Special subject	40	Half-an hour.	60
(ii) Practical working and maintenance of Audiovi- sual aids ; preparation and maintenance of other apparatus	40		
(iii) Measurement and Diag- nosis (Examining Testing ; Recording, Evaluating)	40		
(iv) Practical aspects of Health Education and Citizenship Training ..	40		
Physical Education ..	40		
(v) Arts and crafts or Home Science for women (in- cluding Basic crafts) ..	40*		

(c) Marks qualifying for a pass in—

(i) not less than 35 per cent. of the aggregate marks in papers (i), (ii) and (iii) comprising Part I.

(2) Not less than 35 per cent of the marks in 'Methods of Teaching—General' and not less than 35 per cent of the marks (in the aggregate, if necessary) in the papers on 'Methods of Teaching—Special', and not less than 40 per cent of the marks in the aggregate in the papers on 'Methods of Teaching—General' and 'Methods of Teaching—Special'.

“(3) not less than 40 per cent of the marks in 'Teaching practice' for the work done at College and for the

*Only when the number of special subjects chosen is two. The total number of marks for Part III is 400 or 460 according as the number of special subjects chosen is two or three.

lessons given at the Practical Examination in the two special subjects taken together and not less than 40 per cent of the aggregate marks in Part III."

- (ii) first class 60 per cent and above ; second class 50 per cent and above ; and third class rest.

XIV. M.Ed. Degree Examinations

1. The Degree of Master of Education may be conferred upon :—

- (1) persons who have passed the B.Ed. Degree Examination of this University and who have not less than two years' teaching experience.
- (2) No candidate shall be eligible for the M.Ed. Degree unless he has completed the prescribed course of study in the University or in an affiliated college and has passed the qualifying examination and has satisfied the examiners in a dissertation on an approved subject.

2. The course of study shall extend over a period of one academic year for full-time students and over a period of two academic years for part-time students to teachers in recognised schools or colleges attending the college for not less than two hours per day for purposes of lectures tutorials and library work.

XV. Medical Examination

(i) *M.B.B.S. Degree Examination*

(a) Duration : Five years plus six months of post-examination training.

(b) Courses and Papers—

1. *First M.B.B.S. Examination—*

Part I—Organic Chemistry

Part II—(1) Anatomy—
(2) Physiology—

(2) *Second M.B.B.S. Examination—*

(1) Pharmacology—

(2) Hygiene—

(3) Pathology—

(3) *Final M.B.B.S. Examination—*

- (1) Medicine—
- (2) Surgery—
- (3) Obstetrics and Gynaecology—
- (4) Ophthalmology—
- (5) Forensic Medicine—

(4) *Post-examination training for six months after passing that Final M.B.B.S. and before conferment of the Degree.*(ii) *Degree of Doctor of Medicine*

1. (a) No candidate shall be admitted to the examination for the Degree of Doctor of Medicine unless he produces a certificate showing that—

- (1) having passed the M.B. & B.S. Degree Examination of this University, he has been engaged for five years continuously in the practice of the medical profession, provided he works for six months in a recognised teaching institution before taking the examination or
- (2) after qualifying for the M.B. & B.S. Degree he has passed three years in hospital practice, or
- (3) having passed the M. B. & B.S. Degree Examination in the *first class* he has passed one and half years in hospital practice.
- (4) Every candidate for the M.D. Degree Examination in Medicine or obstetrics shall attend a course of post-graduate lectures extending over a period of nearly six months preceding the Examination.

(iii) *Degree of Master of Surgery*

2. (a) No candidate shall be admitted to the examination for the Degree of Master of Surgery unless he produces a certificate showing that:—

- (1) Having passed the M.B. & B.S. Degree Examination of this University, he has been engaged for five years continuously in the practice of medical profession ; provided he works for six months in a recognised teaching institution immediately before taking the Examination ; or
- (2) after having passed the M.B. & B.S. Degree Examination has passed three years in hospital practice ; or
- (3) having passed the M.B. & B.S. Degree Examination

in the first class, he has passed one and half years in hospital practice,

- II Every candidate for the M.S. Degree Examination shall attend a course of post-graduate lectures extending over a period of nearly six months preceding the examination.

(iv) *Degree of Bachelor of Ayurveda (B.A.V.)*

(a) Duration : 5 years.

Theoretical training 4—years.

Clinical training—1 year.

(b) Courses:

(i) *First B.A.V. Examination—*

(1) Human Anatomy—

(2) Physiology—

(3) Sutra and Sarira based on texts like Susrutha and Astanga Hrudaya.

(ii) *Second B.A.V. Examination—*

(1) Pathology including Bacteriology (Nidanam).

(2) Materia Medica (general)—Dravyagunam Paribhusha and Kalpam—

(3) Materia Medica (special)—Rastantram and Western Materia Medica—

(4) Hygiene (Swastha-vrittam)—

(iii) *Final B.A.V. Examination—*

(1) Medicine (Kayachikitsa, Rassahanam, Vaaje—Karana, Bhoota Vaidya including Manasa-Vaishamya)—

(2) Surgery (Salyam and Sakalyaka)—

(3) Ophthalmology—

(4) Obstetrics, Gynaecology and Pediatrics (Prasuitantram, Stritchikitsa, and Balarishtam)—

(5) Toxicology including Forensic Medicine—

XVI (i) *Degree of Bachelor of Laws (B.L.)*

1. Candidates for the degree of Bachelor of Law shall be required :—

(a) to have passed the first examination in Law of this University.

- (b) to have undergone subsequently a further course of study in the University College of Law as prescribed hereunder extending over a period of one year ; and to have passed the examination for the degree herein-after prescribed.

2. Candidates for the first Examination in Law shall be required :—

- (a) to have passed a degree examination of this University or a degree examination of some other University recognised by the Academic Council as equivalent thereto, or the Law Preliminary examination of this University prescribed hereunder, and
- (b) to have undergone subsequently a further course of study in the University College of Law as prescribed hereunder extending over a period of one year.

3. Candidates for the Law Preliminary examination shall be required :—

- (a) to have passed the Intermediate examination of this University or an examination of some other University recognised as equivalent thereto, and
- (b) to have undergone subsequently a further course of study in the University College of Arts as prescribed hereunder extending over a period of one year.

4. The course for the Law Preliminary examination shall comprise instruction in the following subjects :—

- (1) English based on prescribed books of Socio-political legal interest.
- (2) History of Social Institutions.
- (3) Political Theory and Organisation.
- (4) Outlines of European History.

5. The course for the First Examination in Law shall comprise instruction in the following subjects :—

- (1) Jurisprudence.
- (2) Outlines of Roman Law in accordance with a syllabus.
- (3) The Law of Contracts including the Indian Contracts Act, the Negotiable Instruments Act and the Specific Relief Act.
- (4) The Law of Torts.
- (5) Criminal Law (comprising the Indian Penal Code and General Principles of Criminal Liability).

6. The course for the B.L. Degree shall comprise instruction in the following subjects.

- (1) Property—General Principles including Trusts and Easements.
- (2) Property—Transfer of Property Act (Specific Transfers).
- (3) The Law of Public and Private Trusts and the Law of Easements, and the Law governing Land Tenures in the Madras Presidency.
- (3) Hindu Law.
- (4) Mohammadan Law and the Indian Succession Act.
- (5) Constitutional Law of India along with a general survey of the constitutions of Great Britain and the Dominions.
- (6) The Law of Evidence.
- (7) Elements of Public International Law (Peace).

7. (a) A candidate for the first Law Examination or the B.L. examination shall be declared to have passed if he obtains not less than forty per cent of the total marks and not less than one-third of the marks in each division of the examination.

(ii) *Degree of Master of Laws (M.L.)*

B.L. Degree holders have to study under the supervision of an approved Director for 2 years, submit monthly reports and at least eight Essays and undergo written examination in one of the following branches:—

1. Hindu Law.
2. Jurisprudence and Roman Law.
3. Comparative Constitutional Law.
4. International Law.
5. Contracts and Mercantile Law.
6. Crime and Tort.
7. Property Laws.

There shall be four papers in each of the above Branches, each of three hours' duration and each carrying 100 marks.

Candidates shall obtain not less than 1/3 of the marks in each paper and not less than 40 per cent. on the whole in the written examination.

(iii) *Degree of Doctor of Laws (D.L.)*

The D. L. degree is awarded by thesis. M.L. degree holders of two years' standing are eligible for submitting thesis for the D.L. Degree.

XVII. F.E. and B.E. Examination..

1. *Qualifications for Admission.*—Candidates for admission to the Bachelor of Engineering Examination shall have passed the I.Sc. or the I.A.Sc. examination with Physics, Chemistry and Mathematics (as optional subjects) of this University or any other University recognised as equivalent thereto.

The students admitted to the above course shall be required to undergo a course of study in an affiliated College of Engineering for a period of four Academic years.

First Examination in Engineering

2. (a) *Scheme of Examination.*—The examination shall consist of two parts—Part I and Part II. Candidates for Parts I and II shall undergo the course of studies prescribed for each of the parts for a period of not less than one academic year.

Subjects under Part I:—

1. Mathematics I.
2. Mathematics II.
3. Physics.
4. Chemistry.
5. Applied Mechanics I.
6. Civil Engineering I.
7. Mechanical Engineering I.
8. Practical Geometry.
9. Building Drawing.
10. Machine Drawing.
11. Surveying.
12. Workshop.

Subjects under Part II:

13. Mathematics III.
14. Applied Mechanics II.
15. Civil Engineering II.
16. Mechanical Engineering II
17. Electrical Engineering II.
18. Surveying.

19. Civil Engineering Drawing.
20. Machine Drawing.
21. Estimating.
22. Workshop.

(b) *Percentage of marks required for a pass.*—A candidate shall be declared to have passed each part of the examination if he obtains 35 per cent of the marks in each of the written papers and 50 per cent of the marks in (a) Practical and Sessional work in each subject and (b) in the aggregate.

(c) *Classification of successful candidates.*—Candidates who pass Parts I and II of the examination on the first occasion of appearing therefor, shall be ranked in the order of proficiency as determined by the total marks obtained by each. Those obtaining 6 per cent in the aggregate shall be placed in the first class, the rest in the second class.

All the candidates who pass the examination at a subsequent appearance or subject by subject, shall be ranked in the second class separately.

Bachelor of Engineering Examination

3. (a) *Conditions of admission and courses of study.*—Candidates for the B.E. examination shall have passed the F.E. examination and undergone a regular course of studies thereafter for not less than two academic years in an affiliated college of Engineering.

(b) *Scheme of examination.*—The Examination shall be held in the following branches:—Civil, Mechanical and Electrical Engineering and shall consist of two parts—Part I and Part II.

Candidates for each of the Parts I and II shall undergo the course of studies prescribed for the respective parts for a period of not less than one academic year.

Civil Engineering :—

Part I

1. Mathematics.
2. Strength of Materials and Theory of Structures.
3. Hydraulics I.
4. Geology.

5. Civil Engineering I.
6. Civil Engineering II.
7. Surveying I.
8. Design and Drawing I.
9. Estimating, quantity surveying and specifications.

Part II

10. Theory of Structures II.
11. Hydraulics and Hydraulic Machinery II.
12. Surveying II.
13. Irrigation.
14. Sanitary Engineering.
15. Design and Drawing II (Structural).
16. Design and Drawing III (Irrigation and Sanitary Engineering).
17. Project including Drawing, Estimating and *Viva voce*.

Mechanical Engineering :—

Part I

- (i) Mathematics.
- (ii) Strength of Materials and Theory of Structures I.
- (iii) Hydraulics I.
18. Heat Engines I.
19. Theory of Machines I.
20. Fuels, Gas Plants and Boilers.
21. Electrical Technology I.
22. Machine Drawing and Design I.
23. Workshop I.

Part II

24. Hydraulic Machinery.
25. Heat Engines II.
26. Automobile Engineering.
27. Electrical Technology II.
28. Workshop Practice and Machine Tools.
29. Theory of Machines II.
30. Engineering Economics.
31. Design and Drawing II.
32. Workshops II.

Electrical Engineering :—

Part I

- (i) Mathematics.
- (ii) Strength of Materials and Theory of Structures I.

(iii) Hydraulics I.

33. Mechanical Technology I.

34. Engineering Electronics.

35. Electrical Machinery I.

36. Elec. Design and Drawing I.

37. Workshops I.

38. Industrial Economics and Administration.

Part II

39. Mechanical Technology II.

40. Hydraulic Machinery.

41. Electrical Machinery II.

42. Electrical Power I.

43. Electrical Power II.

44. Water Power Engineering.

45. Electrical Measurements.

46. Electrical Design and Drawing II.

47. Workshops II.

(c) *Percentage of marks for a pass.*—A candidate shall be declared to have passed the examination if he obtain 35 per cent of the marks in each of the written papers and 50 per cent marks in (a) Practical and Sessional work in each subject and (b) in the aggregate.

(d) *Classification of successful candidates.*—Candidates who have passed Parts I and II of the examination on the first occasion of their appearing therefor, shall be ranked in the order of proficiency as determined by the total marks obtained by each in both parts, and shall be arranged in two classes, the First class consisting of those who have obtained not less than 60 per cent of the marks in the aggregate and the second class consisting of all others.

Candidates who pass in the First class and who obtain not less than 66 per cent of marks in the aggregate shall be deemed to have passed with Honours.

Candidates who pass the whole examination at a subsequent appearance or subject by subject shall be separately ranked in the Second class.

XVIII Oriental Title Examinations

(a) Duration : Four years (b) Courses.

(1) *Vidya Praveena* : Preliminary Examination, (4 papers) ;
Final Examination (4 papers).

- (2) *Bhasha Praveena*: Admission Test Examination (3 papers); Preliminary Examination (5 papers); Final Examination (5 papers).
 (3) Certificate of Proficiency—1 Paper of 3 hours.
 (3) Marks qualifying for a pass in—(i) Preliminary and Final examination 40 per cent.; (ii) First class 60 per cent and above; Second class 40 per cent and above.

Table of Examination Fees

<i>Examination</i>					<i>Fee. Rs.</i>
Matriculation Examination	..	..	..	..	23
Intermediate Examination—					
Whole Examination	..	..	..	..	36
Part I only	..	..	..	..	17
Part II only	..	..	..	..	15
Part III only	..	..	..	..	26

Provided that no candidate shall pay more than Rs. 36 at a time whatever be the number of parts in which he appears.

Note.—In the case of candidates with Science subjects, an additional fee of Rs. 3 for each Science subject shall be charged.

Examination

	<i>Rs.</i>
B.A. Pass Degree Examination—	
Whole Examination	55
Part I only	25
Part II only	15
Part III only	30
B.A. (Hons.) Degree Examination—	
Preliminary Examination (Whole)	20
Preliminary Examination English only	15
Preliminary Translation or Early South Indian History or the History of England, etc., only	15
Final Examination	70
M.A. Degree	50
M.A. Degree in International Relations	80

	Rs.
M.A. (Hons.) Degree Examination—	
Thesis and Written (Whole Examination)	100
Written Examination	60
For submitting revised thesis	60
Ph.D. Degree Examination	250
Ph.D. for submitting a revised thesis	125
B.Com. Pass Degree Examination—	
Whole Examination	55
Part I	25
Part II	15
Part III	30
B.Com. (Hons.) Degree Examination—	
Part I (Preliminary Examination)	25
Part I (a)	20
Part I (b)	15
Part II	65
M.Com. Degree Examination—	
Preliminary Examination	25
Final Examination	45
B.Sc. (Ag.) Degree Examination—	
First Examination (Whole)	30
Second Examination (Whole)	35
Third Examination (Whole)	40
Fee for one subject	15
Fee for two subjects	25
Fee for three or more subjects	The fee prescribed for the whole examination.
Registration fee for research leading to M.Sc.	
Degree in Agriculture Examination	25
M.Com. (Hons.) Degree Examination by Research	100
For submitting a revised thesis	60
B.Sc. Pass Degree Examination	
Part I	15
Part II—Main subject and two subsidiary subjects	55
Main subject	30
Two subsidiary subjects	30
Each subsidiary subject	20

B.Sc. (Hons.) Degree Examination (Mathematics)—						Fee Rs.
Part I (Whole)	..	..	..	..	..	20
Part I (a) or Part I (b)	..	..	..	..	..	15
Part II (Whole)	..	..	..	..	..	70
Part II (a)	..	..	..	..	..	30
Part II (b)	..	..	..	..	..	45

B.Sc. (Hons.) Degree Examination Physical and
National Science subjects—

Part I (Whole)	..	..	..	..	..	20
Part I (a) or Part I (b)	..	..	..	..	..	15
Part II (Whole)	..	..	..	..	..	70
„ Main subject	..	..	..	..	..	45
„ Two subsidiary subjects	..	..	..	..	..	30
„ One subsidiary subject	..	..	..	..	..	20
„ Mathematics subsidiary to Chemistry	..	..	..	..	..	15

B.Sc. (Hons.) Degree Examination (General Chemical)
Technology as Main)—

Part I (a) Mathematics	..	..	..	..	..	15
„ (b) Physics	..	..	..	..	..	20
„ (c) Chemistry	..	..	..	..	..	25
„ (d) General Engineering	..	..	..	..	..	20
„ (e) Pharmaceutical Botany	..	..	..	..	..	20
Part I, Physics, Chemistry and General Engineering	..	..	..	..	..	60
Part I, Physics, Chemistry General Engineering and Pharmaceutical Botany	..	..	..	..	..	75
Part II	..	..	..	..	..	35

“ B.Pharm. Degree Examination —

Part I (a) Zoology	..	..	..	..	..	20
(b) Botany	..	..	..	..	..	20
(c) Chemistry	..	..	..	..	..	20
(d) Physiology	..	..	..	..	..	20
(e) Pharmacology	..	..	..	..	..	15
(f) Bacteriology	..	..	..	..	..	20
Part I—Zoology, Botany and Chemistry	..	..	..	..	..	55
Part I—Physiology, Pharmacology and Bac- teriology	..	..	..	..	..	50
Part II	..	..	..	..	..	70
M.Sc. in Statistics	..	..	..	..	..	70
M.Sc. in Mathematical Physics	..	..	..	..	..	45

Fee Rs.

M.Sc. Examination in Physical and National Science subjects—					
(Thesis and Written—Whole Examination)	..	..	..	..	100
Written and Practical Examination	..	..	..	..	70
Thesis	..	..	..	..	70
For submitting in revised thesis	..	..	..	..	60
M.Sc. Examination for B.Sc. Pass (First or Second Class) and for B.Sc. (Hons.) (Third Class) at the end of first year	..	..	..	..	45
M.Sc. in Applied Physics	..	..	..	..	70
Do. Examination for Pass graduates at the end of first year	..	..	..	..	30
M.Sc. in Chemical Technology	..	..	..	..	70
M.Sc. in Chemistry (Special subject—Food, Drugs and Water)	..	..	..	..	50
Do. Examination for Pass graduates at the end of first year	..	..	..	..	30
Examination in German for Pass graduates	..	..	..	..	15
M. Sc. in Applied Geology	..	..	..	..	70
M. Sc. Examination for pass graduates at the end of the first year	..	..	..	..	20
*D.Sc. Degree Examination	..	..	..	..	250
*For submitting a revised thesis	..	..	..	..	125
B.Ed. Degree Examination—					
Whole Examination	..	..	..	..	35
Practical Examination only	..	..	..	..	15
Written Examination only	..	..	..	..	20
M.Ed. Degree Examination	..	..	..	..	125
M.Sc. in each of the Medical subjects (Thesis and Examination)	..	..	..	..	250
Thesis only	..	..	..	..	100
Written and Practical Examinations only	..	..	..	..	150
Revised thesis	..	..	..	..	80
Examination Fee for diploma in each of the Medical subjects	..	..	..	..	152
M.D. Degree Examinations	..	..	..	..	250

*The fee for D.Sc. in the Faculty of Science is the same as that for D.Sc. in Faculty of Medicine.

	<i>Fee Rs.</i>
M.S. Degree—Whole examination	.. .. 250
„ Part I .. ..	.. 75
„ Part II .. ..	.. 175
M.B.B.S. Degree Examination	.. .. 175
First M.B.B.S. Examination—	
Part I Chemistry .. ..	.. 20
Part II Whole Examination .. ..	.. 55
Part II Each subject .. ..	.. 30
Second M.B.B.S. Examination—	
Whole Examination .. ..	.. 60
Part I only (Pharmacology) .. ..	.. 25
Part II only .. ..	.. 40
Each subject under Part II separately—	
Hygiene or Pathology including Bacteriology ..	25
Final M.B.B.S. Examination—	
Whole Examination .. ..	.. 80
Part I only .. ..	.. 30
Each subject under Part I separately—	
Ophthalmology or Forensic Medicine .. ..	.. 20
Part II only .. ..	.. 60
Each of the following subject under Part II separately—	
Medicine or Surgery .. ..	.. 25
Obstetrics and Gynaecology .. ..	.. 20
M.Sc. in each Medical subject (Thesis for Examination)	.. .. 250
Thesis only .. ..	.. 100
Written & Practical Examination only .. ..	.. 150
Revised Thesis .. ..	.. 80
Diploma in each of the Medical Subjects .. ..	.. 125
M. D. Degree Examination .. ..	.. 250
M. S. Degree Exam.—Whole Exam. .. ..	.. 250
„ Part I .. ..	.. 75
„ Part II .. ..	.. 175
Registration fee for the Courses of study leading to any of the M.Sc. or diploma Exams. in	

Rs. *Fee*

Medical Subjects or M.D. or M. S. Degree Examination.	..	..	..	..	50
Law Examinations—					
Law Preliminary Examination	..	..	..	..	40
Do. Part I	..	..	..	..	20
Do. Part II	..	..	..	..	25
First Examination in Law	..	..	..	..	50
Do. for each division	..	..	..	..	30
B.L. Degree Examination	..	..	..	..	60
Do. for each division	..	..	..	..	30
M. L. Degree Examination	..	..	..	..	150
Oriental Title Examinations—					
Vidya Praveena—Preliminary or Final	..	..	..	..	25
Bhasha Praveena—Entrance Test	..	..	..	..	10
Bhasha Praveena—Preliminary or Final	..	..	..	..	25
Bhasha Praveena—Sanskrit only	..	..	..	..	10
Bhasha Praveena—Modern Indian Language only	..	..	..	..	15
Certificate of Proficiency	..	..	..	..	15
Master of Oriental Learning	..	..	..	..	125
Diploma in Librarianship—					
Whole Examination..	..	..	..	..	30
Each group	..	..	..	..	15
Diploma in Music	..	..	..	..	25

Enclosure II

Item 5: *Subjects in which facilities for post-Graduate and Research Work exist in the Andhra University Colleges, Waltair.*

Arts Departments:

- (i) *English*
- (ii) *Telugu*
- (iii) *Mathematics*: Functions of a real variable, Functions of a Complex variable, Analysis, and some parts of Theory of Numbers.

- (iv) *History and Politics*: Ancient and Mediaeval Indian History and Development of the present Indian Constitution.
- (v) *Economics and Sociology*: Public Finance Money and International Trade and Economic Thought.
- (vi) *Philosophy*: Specially in Indian Philosophy—Nyaya, Vaisesika-Vedanta.

Science Departments :

- (i) *Physics*: Atomic and Molecular Spectra in the Infra-red Visible and Ultra-Violet regions.
Micro-waves, Spectroscopy.
Ultra-Sonics, Dielectrics and Wireless.
- (ii) *Chemistry*: Photo-chemistry, Catalysed and induced reactions, Analytical Chemistry, Analytical applications of Organic Reagents, Chemistry of Anthocyanins, Lichen Products, Natural and Synthetic Insecticides and fish poisons, Chemistry of Rare Earth and Rare Elements.
- (iii) *Technology*: Heat Transfer, Fluid flow, Distillation Liquid Extraction, Diffusional Operations, Applied Reaction, Kinetics and Electrolytic Reduction and Oxidation.
- (iv) *Statistics*: Stochastic processes, Statistics and Test Functions.
- (v) *Mathematical Physics*: Group Theory and Applications to Physics.
Operational Theory and application to Physics.
Eigen Problems.
- (vi) *Applied Physics*: Applied Optics.
- (vii) *Geophysics*: Branch I (Meteorology and Oceanography) :
 - (a) Eddy Flux of Energy in the Atmosphere.
 - (b) Turbulence in the lowest layers of the atmosphere.
 - (c) Oceanography and (d) Nocturnal Radiation.

Branch II (Physics of the Earth).

- (a) Study of magnetic hysterics in rocks by Oscillographic methods.
- (b) Application of alternating current magnetic separation to the beneficiation of low-grade manganese ores.
- (c) Pulse methods of studying Ultrasonic velocities in solids.
- (d) Radio active studies in the location of radium and uranium minerals.

(viii) *Pharmacy*: Lichen substances—Insecticides and Fish Poisons, Cardiac glycosides—Plant Pigments.

(ix) *Botany*: (1) Morphology and Embryology of angiosperms.
(2) Cytology and cytogenetics (to a limited extent only).
(3) Plant Physiology.

(x) *Geology*: Ore Dressing, mining geology, prospecting mineral economics and water supply, metamorphic petrology, igneous petrology, sedimentary petrology, ore beneficiation, structural petrology, X-Ray crystallography, ultrasonic methods in geological work, spectro-chemistry, advanced optical mineralogy, petro-chemistry, mineral chemistry and Economy geology.

(xi) *Zoology*: Parasitology and Marine Biology.

Item 6:—No scholarships are available for students from foreign countries.

Degree of Vedacharya.—This is a thesis examination (supplemented by an examination, if necessary, oral, written or both) conducted three years after the candidate has passed the Dharma Shastri Examination.

Degree of Karma Kand Shastri.—The examination for the degree of Karma Kand Shastri will be held in two parts (Khandas), one at the end of the second year and the other at the end of the third year. Admission to the course is given to those candidates who have passed the Madhyama Examination and to those who have passed the Paurohitya Ratna Examination of the University.

Diploma Examination in Paurohitya

In addition to the above courses there is a separate Diploma Examination in Paurohitya. The duration of the course is two years with a University Examination at the end of the second year. The course is open to candidates who have passed the Praveshika or an equivalent examination.

Faculty of Arts

Admission Examination.—The Admission Examination in the case of candidates for admission to the course of study in Arts and Science consists of papers on :

Group A

(i) Hindi

or

Any other Modern Indian Language.

(ii) History or Geography.

(iii) Any three subjects from any one of the following two sections :

Section I

(a) English.

(b) History.

(c) Geography.

(d) Civics.

(e) Music (Vocal).

(f) Music (Instrumental).

(g) Mathematics.

(h) A Classical Language (Sanskrit or Pali or Persian).

(i) Domestic Science.

(j) General Science.

(k) Hindi (for those who do not take Hindi under (i) above.

Section II

(a) English.

(b) Wood Craft.

(c) Book Craft.

(d) Agriculture.

(e) Commerce.

(f) General Science.

(g) Drawing.

(h) History.

(i) Geography.

(j) A Classical Language (Sanskrit, Pali or Persian).

(k) Civics.

(l) Mathematics.

(m) Hindi (for those who do not take Hindi under (i) above.

Note: (a) Those who take Agriculture will have to take General Science and those who take commerce will have to take English.

(b) Subjects offered under (ii) should not be repeated in (iii).

Group B:

(i) Hindi

or

Any other Modern Indian Language.

(ii) English.

(iii) Mathematics.

(iv) Physics and Chemistry.

(v) Any one of the following subjects:—

(a) Botany.

(b) Zoology.

(c) Agriculture.

(d) Geography.

(e) Domestic Science.

(f) Sanskrit.

(g) Wood Craft.

(h) Book Craft.

(i) Commerce.

(j) Drawing.

(k) History.

(l) Civics.

(m) Hindi (for those who do not take Hindi under (i) above.)

ANNAMALAI UNIVERSITY

Annamalainagar

Introductory

The Annamalai University of Annamalainagar, Chidambaram, constituted under an Act of the Madras Legislature, owes its existence to the generous offer by Dr. Rajah Sir Annamalai Chettiar of Chettinad, of the collegiate institutions founded and managed by him at Chidambaram and a sum of Rs. 20 lakhs towards the endowment funds of the University. The Government of Madras enthusiastically responded to the offer by a contribution of Rs. 27 lakhs. The University is unitary, teaching, and residential in character, the first of its kind in South India. In addition to the Faculty of Arts and Science, it has provision for a Faculty of Oriental Learning with a view to giving special importance to the study of Tamil, Sanskrit and Indian History, Indian Music and other subjects, in which special facilities for advanced study and research exist in this part of the country. Since 1945, a faculty of Engineering and Technology has been instituted with provision for courses of study leading to the award of the degree of B.E. in Civil, Mechanical and Electrical Engineering branches and of B.E. (Chem.) in Chemical Engineering. Besides direct teaching and research, the system of tutorial instruction is an additional special feature of this University. The Teaching staff is so organised as to make it possible or special and individual attention being given to the students.

In 1953, additional Faculties of Education and Fine Arts were instituted, the latter with provision for Degree and Diploma courses in Music, and Diploma courses in Architecture, Sculpture, Painting, Drama and Dancing. In the Faculty of Arts, a new Department for courses of studies in Civic, Rural and Social welfare has also been instituted.

Officers and Staff of the University

Chancellor:

His Excellency the Governor of Madras.

Pro-Chancellor—Founder :

Rajah Sir M. A. Muthiah Chettiar of Chettinad, Kt. B.A.,
M.L.A., M.C.A.

Vice-Chancellor :

Dr. Sir. C. P. Ramaswami Aiyar, K.C.S.I., K.C.I.E.,
LL.D.,

Deputy to Vice-Chancellor :

Sri A. Ramanatha Pillai, M.A.

Offg. Registrar :

Sri T. D. Meenakchisundaram, B.A., B.L. (Offg.)

Bursar :

Sri K. P. Kandaswami Pillai.

Offg. Deputy Registrar :

Sri S. Ramachandra Aiyar, B.A.

Librarian :

Sri K. Natarajan B.A., Cert. of Lib.

Members of the Teaching Staff :

<i>English</i>	Professor M. S. Duraiswami, M.A., 2 Associate Professors, 7 Lecturers and 4 Tutors.
<i>History and Politics</i>	Professor R. Sathianatha Aiyar, M.A., 1 Associate Professor and 3 Lecturers.
<i>Rural, Civic and Social Welfare.</i> ..	Dr. (Miss) M. Cornelius B.A., L.T., M.A. (Columb.) M.Sc., Ed. D. (Mich. U.S.A.)
<i>Philosophy</i> ..	1 Professor and 3 Lecturers.
<i>Economics</i> ..	Professor V. G. Ramakrishna Aiyar, M.A., 1 Associate Professor and 4 Lecturers.

<i>Mathematics</i>	..	Professor Dr. V. Ganapathy Aiyar, M.A., D.Sc., 1 Associate Professor and 7 Lecturers.
<i>Physics</i>	..	Professor T. P. Navanitakrishna, M.A., 1 Associate Professor, 6 Lecturers and 3 Demonstrators.
<i>Chemistry</i>	..	Professor Dr. V. Baliah, B.Sc. (Hons.), M.Sc., Ph.D. (Stanford), Additional Professor: Dr. K. Nilakantan, M.A. Ph.D., D.I.C., F.A.Sc., 1 Associate Professor, 8 Lecturers and 5 Demonstrators.
<i>Agriculture</i>	..	Professor S. Krishnamurti, B.Sc. (Agr.) M.Sc. (Calif.), Ph.D. (Mich.) and 2 Lecturers.
<i>Geology</i>	..	Professor T.N. Muthuswami Aiyar, M.A., L.T. and 1 Lecturer.
<i>Botany</i>	..	Professor T. C. N. Singh, M.Sc., D.Sc., 1 Associate Professor, 3 Lecturers and 2 Demonstrators.
<i>Zoology</i>	..	Professor R. V. Seshaiya, M.A., 1 Associate Professor, 4 Lecturers and 2 Demonstrators. 1 Research Assistant.
<i>Tamil (Arts)</i>	..	Professor A. Chidambaranatha Chettiar, M.A., Ph.D., 1 Associate Professor, 5 Lecturers and 2 Tutors.
<i>Tamil (Oriental)</i>	..	Professor L. P. Kr. Ramanathan Chettiar Pandita, Vidwan and 5 Lecturers.
<i>Tamil Research Section.</i>		Professor, G. Subramania Pillai, M.A., B.L., 3 Lecturers and 1 Tutor.
<i>Sanskrit</i>	..	1 Professor and 7 Lecturers.
<i>Malayalam</i>	}	3 Lecturers.
<i>Urdu</i>		
<i>French</i>		

<i>Physical Education.</i>	Professor and Director: L.K. Govindarajulu, B.A., B.L., (on leave) and 5 Lecturers.
<i>Music</i>	Professor Chittoor Subrahmanya Pillai and 10 Lecturers.
<i>Engineering</i> <i>Civil</i>	Professor Rao Bahadur P. Venkataramana Raju, B.E., C.E. (Hons.), M.I.E., I.S.E. (Retd.), Professor G. S. Ramaswami, B.E., C.E., M.S. (Calif.), 4 Asst. Professors, 9 Lecturers and 1 Draftsman.
<i>Mechanical.</i>	Sri C. Rajaram, B.A., B.E., Offg. Prof. 2 Asst. Professors, 5 Lecturers and 1 Draftsman.
<i>Electrical.</i>	1 Professor (vacant) 2 Assistant Professors, 4 Lecturers and 1 Draftsman.
<i>Technology.</i>	Professor N. P. Palainappan, M.Sc., M.Sc., (Tech.) (Manch.) 2 Assistant Professors, 3 Lecturers and 2 Demonstrators.
<i>Education.</i>	Professor R. Ramanujachariar, M.A., and 1 Lecturer and Part-time Lecturers.

Constitution of the University

The principal authorities of the University are the Senate, the Syndicate, the Academic Council, the Faculties, the Boards of Studies and the Board of Selection.

The Vice-Chancellor is the Principal Executive Officer of the University.

All the appointments on the teaching staff are made by the Board of Selection, composed in part, of representatives of the Syndicate and the Senate.

Scholarships, Medals and Prizes

A number of scholarships are awarded on the basis of merit and poverty. In the Oriental Faculty, stipends to meet boarding charges are given to students. There are a large number of endowed prizes, scholarships and medals awarded by the University for proficiency in the examinations. The Prize Endow-

ment Fund amounts to Rs. 90,000 and the proceeds of the Fund are utilised towards the award of prizes and medals in accordance with the conditions of award relating to the several endowments.

Endowments valued at Rs. 1,65,800 in cash and 118.75 acres of lands were founded by the Tiruppanandal Mutt, the annual income from which is to be utilised for (1) the award of prizes and (2) the publication of Tamil Works, Literature and Grammar.

A gift of Rs. 25,000 has been made by the late Founder,—Pro-Chancellor of the University, Rajah Sir Annamalai Chettiar, towards the development of Tamil Isai Competitions and subsidies to Music Sabhas are also given to further the objects of the Founder.

Library

The University has a Library, the affairs of which are managed by a Committee constituted by the Syndicate. The Library is housed in a separate building constructed and equipped at a cost of Rs. 5,00,000.

The total number of books in the General and Sectional Libraries is over 83,961 (including back numbers of periodicals and manuscripts. The nucleus of the Library was the Library of the Sri Minakshi College which included a gift of about a thousand volumes from Mr. V. Venugopal Chetty, I.C.S. The Library receives regularly 445 scientific and learned periodicals.

Each department of study has its own seminar library for the use of Honours and Research students.

The Library is open from 10 a.m. to 5-30 p.m. and the text-books section from 7 a.m. to 10 a.m. and from 1 p.m. to 3 p.m. The Library is thrown open to the public.

Provision for Research

There is provision for the award of Studentships and Fellowships to distinguished graduates for research work in different subjects, tenable at the University or abroad, the value of which ranges from Rs. 50 to Rs. 150 per mensem ; grants-in-aid for research work are also awarded under certain conditions.

With a view to providing for the advancement of learning in Tamil, a research department in Tamil with a special staff is working under the guidance of a Professor.

Publications and Research

The University generally undertakes the publication of the results of research work, lectures delivered and other theses and monographs.

The University publishes, in two issues a year, a research Journal which embodies the research work of members of the Teaching Staff and research students. The following are the University Publications.

Publications of the Departments

History

Series No.	Year of Publica- tion	Price		
		Rs.	A.	P.
1. Bhoja Raja by Prof. P. T. Srinivasa Ayyangar	1931	1	8	0
2. *The Nayaks of Tanjore by Rao Bahadur C. S. Srinivasachariar and (i) Mr. Vriddhagirisan (In journal) parts	1942	10	0	0
(ii) Mr. Vriddhagirisan (In journal) parts	1942	4	8	0
3. History of Gingee and its rulers by Rao Bahadur C. S. Srinivasachariar ..	1943	4	0	0
4. Indian History—(in Tamil) by Rao Bahadur C. S. Srinivasachariar and Mr. S. K. Govindaswami ..	1943	2	8	0
5. Dutch in Malabar by Dr. P.C. Alexander	1946	3	8	0
6. Hoysalas in the Tamil Country by Mr. K. R. Venkataraman ..	1950	2	8	0

*Out of Stock;

Note: The prices are subject to a commission of 25% on all purchase from the university.

Series No.		Year of Publica- tion	Price		
			Rs.	a.	p.
7.	Buddhism in Kerala by Dr. P. C. Alexander M. A., D.Litt. . .	1949	6	0	0
8.	The History of Pearl Fishery in the Tamil Coast by Mr. S. Arunachalam . .	1952			
9.	Maratha Rule in the Carnatic by Mr. C. K. Srinivasan . . .	1945	3	0	0
10.	*History of the Later Cholas— (in Tamil) by Mr. T. V. Sadasiva Pandarathar Vol. I . .	1949	5	8	0
11.	Do. Vol. II . .	1951	5	0	0
12.	Selections from the Orme Mss. Edited by Rao Bahadur C.S. Srinivasachariar . . .	1952	15	0	0
13.	The Oldest Chidambaram Inscriptions by Mr. S. R. Balasubrahmanyam . .	1943	2	0	0
14.	Mediaeval Kerala by Mr. P. K. S. Raja . .		6	4	0
15.	Kongu Nadw by Rao Bahadur C. M. R. Chettiar		In Press		

Economics

1.	Factory Labour in India by Prof. A. Mukhtar	1930	3	0	0
2.	The Distributive Co-operation in India by Mr. V. G. Ramakrishna Aiyar . .	1938	1	0	0
3.	The Madras Agriculturists' Relief Act— A study by Dr. B. V. Narayanaswami Naidu and Mr. P. Vaidyanathan, M.A.	1939			
4.	Report on the working of Prohibition in Salem by Mr. C. Jaganathachari, M.A., M.Litt.	1939			
5.	Madras Sales Tax Act by Dr. B. V. Narayanaswami Naidu and Mr. Thiruvengadathan	1940	1	8	0
6.	*Road and Rail Transport by Dr. B. V. Narayanaswami Naidu and Mr. S. R. N. Badri Rao		5	0	0
7.	Ground Nut by Dr. B. V. Narayanaswami Naidu and Mr. P. S. Hariharan . .	1941	2	8	0
8.	Economy of the South Indian Temple by Mr. V. G. Ramakrishna Aiyar . .	1946	2	0	0

*Out of Stock.

Series No.	Year of Publica- tion	Price		
		Rs.	a.	p.
9. Text-book on Economics— (in Tamil) by Mr. V. G. Ramakrishna Aiyar	1942	2	0	0
10. * The Indian Trade by Dr. B. V. Narayana- swami Naidu		2	0	0
11. The Sample Surveys on working of Pro- hibition in South Arcot District by Mr. V. G. Ramakrishna Aiyar ..	1949	0	8	0

Philosophy

1. Nyayakulisa Edited by Prof. R. Ramanujachari and Pandit K. Srinivasacharya	1938	2	8	0
2. Nitimala by Narayanarya do ..	1940	2	0	0
3. *Naveena Tarkam—(in Tamil) by Mr. K. R. Applachariar ..		2	0	0
4. *Educational Psychology in Tamil by Prof. K. R. Appalachariar and Prof. Ramanujachari		1	0	0
5. Sivagnana Bodham—(in Tamil) by Mr. Avvai S. Doraiswami Pillai		In Press		
6. A New approach to Tiruvasagam by Mrs. Ratna Navaratnam, M.A., M.Litt.	1951	4	0	0
7. Saiva Siddhanta—Theory of knowledge of by Dr. V. Ponniah	1952	8	0	0
8. Gnanamirtham of Vagisamunivar— (in Tamil) Edited by Mr. Avvai S. Doraiswami-Pillai		In Press		
9. Deductive and Inductive Logic in Tamil by Mr. S. Sivapadasundaram		In Press		

Tirupanandal Endowment Lectures

10. Introduction and History of Saiva Siddhanta by Mr. G. Subramania Pillai, M.A., B.L.	1948	3	0	0
11. Lectures on Saiva Siddhanta by Mr. M. Balasubramanya Mudaliyar, B.A., B.L.	1951	1	0	0
12. „ by Prof. R. Ramanujachari	1952	1	4	0

Series No.		Year of Publica- tion.	Price		
10.	,, by Mr. K. Vajravelu Mudalia		Rs	a. p.	
			In	Press	

Mathematics

1.	Text book on Algebra for Intermediate— (in Tamil) by Mr. T. Govindarajan, M.A. ..	1949	5	0	0
2.	Trigonometry—(in Tamil) by Mr. T. K. Manickavasagam, M.A., L.T. ..	1949	7	0	0
3.	Intermediate Geometry—(in Tamil) by Dr. K. Rangaswami Aiyar M.A. M.Sc., Ph.D. ..	1950	2	8	0

Physics

1.	Vignana Sirunool—(in Tamil) by Mr. T. P. Navaneetha- krishna M.A. ..	1946	0	12	0
2.	Instructions for Experiments in Practical Physics for Intermediate ..	1947	1	8	0
3.	Do. B.Sc. ..	1947	3	0	0
4.	Manual of Science—(in Tamil) Vol. I by Mr. T. P. Nava- neethakrishna, M.A. ..	1951	10	0	0
5.	Do. Vol. II ..	1952	10	0	0
6.	A Text-book on Physics—(in Tamil) by Mr. R. K. Visvanathan Vol. I ..	1941	3	0	0
7.	Do. Vol. II ..	1941	2	0	0
8.	*Acoustics—(in Tamil) by Mr. R. K. Visvanathan ..	1936	In	Press	
9.	Physics of Music by Mr. R. K. Visva- nathan ..	1948	2	0	0
10.	Text-book of Practical Physics (Tamil) by Mr. S. Sriraman. M.A., M.Sc. ..	1952	6	0	0

* Out of Stock.

Series No.		Year of Publica- tion	Price		
			Rs.	A.	P.

Chemistry

1. A Text-book on Chemistry (in Tamil)
by Mr. N. Ananthavaidyanathan
Vol. I 1938 3 0 0
2. Do. Vol. II 1941 2 8 0
3. Practical Chemistry for Intermediate
Course—(in Tamil)
by Mr. P.L. Ramaswamy, M.A. 1949 4 8 0

Botany

1. *A Text-book on Botany—(in Tamil)
by Dr. T. S. Raghavan 1942 3 0 0
2. Cytological Studies in Bignoniaceae
by Dr. K. R. Venkatasubban,
M.Sc. 1944 5 0 0

Tamil

1. *Pari Kathai—(Tamil) by Basha
Kavisekhara Vidwan R. Raghava
Ayyangar 1937 2 0 0
2. Kurunthogai Vilakkam— Do. 1947 1 8 0
3. History of Tamil Literature—Do. 4 0 0
4. *Advanced Studies in Tamil Prosody by
Dr. A. Chidambaranathan Chettiar 1943 2 0 0
5. Elephant in Tamil Land by Mr. E. S.
Varadaraja Iyer, B.A. 1945 1 4 0
6. Thiththan—by Basha Kavisekhara
Vidwan R. Raghava Ayyangar .. 1949 1 0 0
7. Perumpanarttuppadaï—by Basha
—Kavisekhara Vidwan
Raghava Iyengar 1949 2 0 0
8. Kosar— Do. 1951 0 12 0

*Out of Stock.

Series No.	Year of Publication	Price		
		Rs. A. P.		
9. Pattinappalai—by Basha Kavisekhara Vidwan Raghava Iyengar	1951	1	4	0
10. Tolkappiam Porulathikaram Vol. I, Part I by Mr. E. S. Varadaraja Iyer ..	1948	3	8	0
Do. .. Part II	1948	4	8	0
11. Tree Worship and Ophiolatory by Mr. G. Subramania Pillai, M.A., B.L.	1948	1	8	0
13. Historical Tamil Reader by Dr. P. S. Subramanya Sastri ..	1945	2	8	0
14. Tolkappiam Collathikaram Do.	1945	5	0	0
15. Kautaleeyam—by Mahamahopadhyaya Pandithamani M. Kadivesan Chettiar by Mr. M. Kathersan Chettiar		In Press		
16. Aiyon Kurunoorw Ed. by Mr. A. S. Doraiswami Pillai		In Press		

Tamil Isai Series—(In Tamil)

1. Volume I*46 Songs	1943	2	0	0
2. „ II 104 Pieces	1953	4	0	0
3. „ III* 75 Songs	1943	2	0	0
4. „ IV * 16 Songs	1943	2	0	0
5. „ V Part 1 by K. Ponniah Pillai ..	1948	1	8	0
6. „ Part 2 Musical Instruments. ..	1945	1	4	0
7. „ Part 3 Swaramela Kalanidhi ..	1947	1	0	0
8. „ VI * 90 Songs of Gopalakrishna Bharati ..	1944	3	0	0
9. „ VII * 70 Songs of periaswami ..	1943	2	0	0
10. „ VIII Songs of Arunachala Kavi ..	1945	3	0	0
11. „ IX Songs of Marimutha Pillai and others ..	1945	3	0	0
12. „ X Songs of Muthusami Kavirayar ..	1946	3	0	0
13. „ XI Suddhananda Bharathiar ..	1945	3	0	0
14. „ XII Lessons on Mridangam Practice ..	1946	3	8	0
15. „ XII Part II Do ..	1948	1	6	0

*Out of Stock.

Series No.	Year of Publica- tion	Price Rs. A. P.
16. „ XIII Songs of Balakavi Ramnatha Chettiar	1946	3 0 0
17. „ *XIV Saddhananda Bharati	1946	3 8 0
18. „ XV Songs of M.P.P. Thoovan	1947	3 0 0
19. „ XVI „ V. Ramaswami Sevan	1948	3 0 0
20. „ XVII 50 Songs of various authors	1948	3 0 0
21. „ XVIII Songs of K. Ponniah Pillai	1949	4 0 0
22. Bharata Sangraham, by K. Vellaivaranan		In Press
23. Swaramela Kalanithi by Mr. M. S. Ramaswami Ayyer	1932	2 0 0
24. Tiropugazh, by C. Subrahmaniam Pillai		In Press

Tirupanandal Mutt Endowment Publications

1. Kambar Memorial Prize Selections— (in Tamil)	1944	0	8	0	Nett
2. Adi Kumaraguruparar—(in Tamil)	1945	0	12	0	„
3. Sekkizhar Selections—(in Tamil)	1944	0	8	0	„
4. Tevara Tirumurai-Preliminary—	1944	0	12	0	„
5. „ Part II	1953	1	4	0	„

Sanskrit

1. Text and commentary of Tattvavibhavana by Parameswaran, a commentary on Vacaspati Misra's Tattvabindu by Mr. V.A. Ramaswami Sastri..	1936	3	0	0
2. *Jagannatha Panditha by Mr. V. A. Ramaswami Sastri	1942	2	0	0
3. Srimukundamala, Edited by Prof. K. Rama Pisharoti	1933	3	0	0
4. Svarasiddhanta Candrika by Srinivasayajvan Edited by Mr. K. A. Sivarama- krishna Sastri	1936	5	0	0
5. Trimsacchloki (Sanskrit) Edited by Mr. N. Subramania Sastri	1937	0	8	0

*Out of Stock.

6.	Studies in Sanskrit texts on Temple Architecture by Dr N. V. Mallayya..	1949	10	0	0
7.	Vivarana with Vyutpattivada—Lakararthavicara by Mr. V. Subramanya Sastri	1948	6	0	0
8.	*The Philosophy of Aesthetic Pleasure by Mr. P. Panchapagesa Sastri	1940	3	0	0
9.	Lectures on Patanjali's Mahabhasya, Vol. I by Dr. P. S. Subramanya Sastri	1944	3	0	0
10.	Do. Vol. II	1951	10	0	0
11.	History of Sanskrit Literature—(in Tamil) Do.	1946	10	0	0
12.	History of Sanskrit Language—(in Tamil) by Dr. P. S. Subramanya Sastri	1950	5	0	0
13.	Bhavanaviveka with Visamagranthibhedika by Mr. V. A. Ramaswami Sastri and Mr. K. A. Sivarama Krishna Sastri	1949	4	8	0

GENERAL

The Journal of the Annamalai University, Annual Subscription..	7	8	0
*Raja Sir Annamalai Chetiar Commemoration Volume.. .. . 1941	10	0	0

With a view to the ultimate adoption of Tamil as the medium of instruction in the University, the Syndicate instituted prizes for text-books in Tamil on various subjects. So far books in Tamil on Logic, Physics, Chemistry, Botany, History of India, Practical Chemistry, Trigonometry and Algebra, Practical Physics and Geometry have been published. The Heads of Departments of Studies have been requested to arrange for getting ready manuscripts of text-books in the other optional subjects for use in the Intermediate classes and in the several optional subjects suitable for use in the Pass course.

General Council of Associations

There is a General Council of Associations, membership of which is open to all students of the University. The constitution is based largely on that of the Union at Oxford. The Association elects its Chairman and Secretary and its affairs are controlled by a Council consisting of staff and student members. There are, besides the Association, a number of Societies in connection with the various subjects of study, and papers are read and lectures delivered before those societies at intervals. The University has also a Dramatic Club. A special hall has been built for the Association to conduct its meetings and other activities.

Residence, Health and Discipline

Physical Training is compulsory for all students of the University. The University has extensive play-fields. A spacious Sports Pavilion has been constructed. Ample facilities exist for Boating, with a canal 3 miles long.

Every student is required as a condition of admission to the University to reside (either in the Hostels maintained or recognised by it or in approved lodgings) for not less than 80 per cent of the number of days in a term in each academic year.

There are eleven sections in the Hostel under the general supervision of the Warden. There is accommodation at present for 1,200 students, in the residential blocks. There is a separate Hostel for Women students, under the control of a Lady warden.

A dispensary with an isolation ward is maintained for the benefit of the students and the staff. There is a Medical Officer and a Sanitary Inspector on the Staff of the University. Medical Inspection is compulsory for all students and is conducted by the Medical Officer in co-operation with the Director of Physical Education.

Quarters for the Compounder, midwife and the ward-boy have also been provided.

Admission to the University Courses of Study and Examinations

Statement of latest figures for total number of students in the University:—

Total number of students—1825	{ Boys—1,704.
	{ Girls— 121.

The University awards in the Faculty of Arts the degrees of B.A. (Pass and Honours), M.A., M.Litt., Ph.D. and D.Litt. ; in the Faculty of Science, the degrees of B.Sc. (Pass and Honours), M.A., M.Sc., Ph.D., D.Sc. ; in the Faculty of Oriental Studies, the degrees of B.O.L., M.O.L., B.Mus. besides Pulavar, Vidwan, Siromani and Sangitha Bushana Titles ; and in the Faculty of Engineering and Technology the degrees of B.E. (Civil, Mechanical and Electrical) and B.E. (Chem.). A Certificate in Tamil Music is also awarded for Post-Sangita Bhushana course.

Admission to Courses of Study

To be eligible for Matriculation in the University, candidates should have passed the Matriculation Examination of an Indian University or the S.S.L.C. Examination of a recognised Board under the conditions prescribed in this behalf.

Course of Study, Degrees and Examinations

1. The Intermediate Examination—The Course of study consists of three Parts and extends over a period of two years.

Part I :—English.

Part II :—A Second Language.—The course will comprise the study of text-books, grammar and translation and in the case of vernaculars, original composition. The main object of the study of the languages is to train the students to use them as vehicles of modern thought.

1. Classical: Sanskrit.
2. Modern European: French.
3. Indian: Tamil, Malayalam, Telugu, Canarese Hindi and Urdu.

Part III :—Three subjects to be selected out of the following groups A, B, C and D at the option of the candidates :—

Group A.

Mathematics
Physics
Chemistry
Natural Science
Geography

Group B.

Logic
Psychology
Elements of Politics
World History
Elements of Economics
A third Language (Sanskrit,
Tamil, French, Malayalam, Hindi
or Urdu).

Group C.

Economic History of England
and Economic Geography
Indian Music

Group D.

Subject prescribed for the
Preliminary Division of the
Examination for any one of the
Oriental Titles.

There are three papers in English, two in the second language and two papers in each of the three subjects selected under Part III.

Candidates obtaining 35 per cent of the aggregate marks in Part I and Part II and in each of the three subjects under Part III shall be declared to have passed the Examination. Those obtaining 50 per cent or over of the total marks in all the three parts put together will be placed in the first class and others in the second class. Those obtaining not less than 60 per cent. of the marks in any subject shall be declared to have gained distinction in that subject.

Candidates wishing to proceed to a degree course in Arts or Science shall be required to choose at least two of the optional subjects either from Group A or Group B. A separate practical examination in Science Subjects with marks assigned to it is a special feature.

Degree of Bachelor of Arts and Bachelor of Science

A pass in the Intermediate examination of this or a statutory University or an examination recognised as equivalent thereto, qualifies for admission to the B.A. or B.Sc. Degree Course.

The B.A. Degree and B.Sc. Degree courses shall extend

over a period of two years leading to an examination comprising the following:—

Part I: English—The course shall comprise two plays of Shakespeare, Modern English Prose, and Poetry text-books prescribed for detailed study, and Prose texts for non-detailed study, the scope being indicated by the provision of eight hours' teaching per week for two years. The examination shall consist of four papers and shall be taken along with those in other parts at the end of the second year.

Part II: A second Language (Sanskrit, Tamil, Telugu, Malayalam, Canarese, French, Hindi and Urdu). Part II shall consist of two papers in a second language, the first on prescribed text-books comprising more of Modern Prose and less of Modern Poetry in that language and the other on Composition and Translation, the scope being indicated by four hours' teaching per week and the examination being taken along with those in other parts at the end of the course of two years.

Parts III and IV: Optional Subjects—Any two of the following subjects one under each of the two parts.

Leading to the B.Sc. Degree. *Leading to the B.A. Degree.*

- | | |
|--|---|
| (i) Mathematics (4 papers) | (i) Philosophy (4 papers) |
| (ii) Physics (3 papers and practical test) | (ii) History and Politics (4 papers) |
| (iii) Chemistry (3 papers and two practical tests) | (iii) Economics (4 papers) |
| (iv) Botany (2 papers and two practical tests) | (iv) English, Tamil, Sanskrit, Malayalam or French (4 papers) |
| (v) Zoology (2 papers and two practical tests) | |

The main features of the scheme are:—

- (i) The inclusion of English as an optional subject;
- (ii) The introduction of a course in composition and translation in the mother-tongue under Part II;
- (iii) The division of Arts and Science subjects under the optionals, the former group leading to the award of the B.A. Degree and the latter to the award of the B.Sc. Degree.

The minimum for a pass is 35 per cent in Part I (English),

35 per cent in Part II (Second Language) and 35 per cent. in each of the selected subjects under Parts III and IV. Successful candidates obtaining not less than 60 per cent of the marks in any Part shall be placed in the first class in that Part and those obtaining less than 60 per cent and not less than 50 per cent in the second class and others in the third class.

Degree of Bachelor of Arts (Hons.) and Bachelor of Science (Hons.)

A Pass in the Intermediate examination or B.A. or B.Sc. degree examination of this or a recognised University or any other examination recognised as equivalent thereto shall qualify for admission to this course.

For the B.A. (Honours) and B.Sc. (Honours) Degrees the course shall extend over a period of three years for Intermediates and two years for B.A. or B.Sc. graduates each year consisting of three terms and shall comprise instruction in:—

1. English during the first year (Preliminary Examinations).

One of the following branches of knowledge during the three years:

<i>Leading to B.Sc. (Honours)</i>	<i>Leading to B.A. (Honours)</i>
(i) Mathematics (8 papers)	(i) Philosophy (8 papers)
(ii) Physics (6 papers and 4 practical tests)	(ii) History (8 papers)
(iii) Chemistry (5 papers and 3 practical tests)	(iii) Economics (8 papers)
(iv) Zoology (6 papers and 4 practical tests)	(iv) (a) English Language and Literature (9 papers)
	(b) English with either Sanskrit or Tamil (10 papers)
(v) Botany (5 papers and 4 practical tests)	(v) Sanskrit Language and Literature (10 papers)
	(vi) Tamil Language and Literature (9 papers)

The minimum for a pass is 40 per cent of the total marks and 30 per cent. in each of the three divisions of the Examination in each subject. Candidates obtaining 60 per cent or more of the aggregate marks are placed in the first class and those getting not less than 50 per cent in the second class and those getting less than 50 per cent and not less than 40 per cent in the third class.

Bachelor of Music Degree (B.Mus.)

The B.Mus. degree is awarded after the successful completion of a four years' course leading to a preliminary examination at the end of the second year and a final examination at the end of the fourth year.

The course is designed not only to train professional musicians but also to train their critical faculty for a proper appreciation of the various systems of Music and pursue higher study and research in the field of Music.

M.A. Degree

On payment of Rs. 25, the M.A. Degree is conferred on B.A. (Honours) and B.Sc. (Honours) graduates, after the lapse of 5 years from the date of their passing the Intermediate Examination.

M.Sc. by Examination

For the M.Sc. Degree by Examination the course shall extend over a period of one year, consisting of three terms in the case of B.Sc. Honours and B.E. Civil and Mechanical graduates. It shall comprise instruction in one of the following branches of knowledge: (i) Mathematics, (ii) Physics, (iii) Chemistry, (iv) Zoology, (v) Botany and (vi) Engineering.

The examination shall be conducted by means of written papers and may also be by *Viva voce* and in subjects which admit of it; candidates shall also be required to undergo a practical examination.

The minimum for a pass is 50 per cent of the total marks and 40 per cent in each part of the Examination. Candidates obtaining 60 per cent or more of the aggregate shall be declared to have passed in the First Class.

The course in each branch shall be as follows:—

- (i) Mathematics—Statistics or any other subject prescribed therefor.
- (ii) Physics—either Wireless Communications or Atomic and Molecular Magnetism.
- (iii) Chemistry—two theory papers, two practicals and a thesis.

(iv) Zoology—one of the following:—

- (a) Proto Zoology (b) Comparative and Experimental Embryology (c) Morphology and Taxonomy of Mollusc or Pisces (d) Animal Genetics.

(v) Botany—One of the following Structure development and taxonomy of either (i) Thallophytes and Bryophytes (ii) Pteridophytes and Gymnosperms (iii) Cytomorphology and taxonomy of Angiosperms (iv) Cytology Cytogenetics and plant-breeding.

(vi) Engineering—One of the following:—

- (i) Structural Engineering,
(ii) Public Health Engineering,
(iii) Agricultural Engineering (For Mechanical Engineering graduates).

M.Litt., M.Sc., Ph.D., D.Litt., & D.Sc. Degrees (By Research)

All these degrees are awarded on the basis of research theses to Bachelors of Arts or Science (Honours) after the completion of an approved course of special study and research under the guidance and supervision of a teacher of the University for a period of one or more years in the case of Honours graduates.

The Ph.D. Degree is awarded on conditions similar to the M.Litt. and M.Sc. Degrees. It is open to M.Litt. and M.Sc. and Honours graduates. The thesis is to be submitted after an approved course of study and research for a period of two or three years respectively at the University under the guidance of a teacher of the University.

The D.Sc. Degree is open to Ph.D. and M.Sc. Degree holders. The thesis is to be submitted after a period of one year or two years respectively at the end of an approved course of study and research either at the University or elsewhere.

The D.Litt. Degree is on the lines of the D.Sc. Degree open to Ph.D. and M.Litt. degree holders. There is provision for exemption from the duration of the prescribed period of study and research, in the case of teachers of not less than three years' standing.

ORIENTAL TITLES

The B.O.L. Degree is awarded at the successful completion of a course of study and an examination, two years after the Intermediate. An S.S.L.C. holder with not less than 35 per cent marks in English eligible for admission to a course of study in the Oriental Faculty will have to put in an additional course of two years and pass the Intermediate B.O.L. consisting of Part I-English and Part II which is identical with Pulavar or Vidwan Preliminary Examination. The final B. O. L. course of study and examination consists of three parts, Part I-English, Part II-Linguistics with special reference to Tamil or Sanskrit and Part III which is identical with final examination for Pulavar or Vidwan or Siromani.

The M.O.L. is a research degree. The thesis should be submitted after a two years' course from the date of passing the Certificate of Proficiency Examination.

The Siromani Titles in (i) Vedanta, (ii) Mimamsa, (iii) Vyakarana, (iv) Sahitya and (v) Nyaya and Vidwan Title with Tamil (Main) and Sanskrit (Subsidiary) and Pulavar Title with Tamil alone, are awarded after the successful completion of a four years' course leading to a Preliminary Examination at the end of the second year and a final Examination at the end of the fourth year.

Certificate of Proficiency in Oriental Learning:—The Examination is to be taken two years after passing the Preliminary Examination for titles.

Sangitha Bushana Title:—It is a course of four years leading to a Preliminary Examination at the end of the second year and a Final Examination at the end of the fourth year.

The Tamil Music Certificate is awarded after a year's course open to Sangitha Bushana Title Holders and others who have special aptitude in Music.

ENGINEERING AND TECHNOLOGY

Instruction is offered in the following courses of study (i) B.E. Degree course (ii) B.E. (Chem.) Degree course.

The Engineering degree course extends over a period of four years after Intermediate Science, leading to the award of the

degree in the following branches (a) Civil (b) Mechanical and (c) Electrical Engineering. The course in Chemical Engineering for B.E. (Chem.) Degree is also of four years' duration after Intermediate Science. The minimum for a pass for the Examinations during the 1st and 2nd years is 30 per cent in each subject and 40 per cent in the aggregate and for the examinations in the 3rd and 4th year, 40 per cent in each subject and 50 per cent in the aggregate. There is provision for exemption from re-appearance at an examination in a subject in which not less than 50 per cent of the marks have been secured. There is a University Examination at the end of each year of the course.

Post-Graduate Study and Research

There is a Post-Graduate Council consisting of the Vice-Chancellor and the Heads of Departments of Study in the University to direct and control Post-Graduate Studies and Research and make recommendations thereon to the Syndicate. At present there is provision for instruction in the following subjects leading to the award of M.Sc. degree by examination.

(i) Mathematics ; (ii) Physics ; (iii) Chemistry ; (iv) Botany and (v) Zoology, (vi) Engineering, (1) Structural Engineering, (2) Public Health Engineering, and (3) Agricultural Engineering.

With financial grants sanctioned by the Government of India research training facilities in science subjects have been provided in the departments of Physics, Chemistry, Botany and Zoology. Besides, 7 Research Scholarships of the value of Rs. 200 p. m. and 12 of the value of Rs. 100 p.m. were earmarked by the Government of India for award by the University with effect from 1950-51, for the departments of Mathematics, Physics, Chemistry, Botany, Zoology and Technology. At present 10 research scholars are working in the above Departments under the guidance of the Professors concerned on specific problems to assigned each and approved by the Government of India.

NATIONAL CADET CORPS

With the sanction of the Government of India 2 units of the National Cadet Corps (Senior Division) with a strength of 5 Officers and 154 cadets for the Infantry Unit and 2 Officers

and 60 cadets for the Signal Unit were formed from the Academic year 1949-50. The University has sanctioned a contribution of Rs. 1,000 towards the provision of amenities to the N.C.C. Units.

Finance

4. Financial Statement—1951-52.

<i>Receipts.</i>		<i>Charges-recurring.</i>	
	Rs.		Rs.
Fee Receipts ..	3,81,847	1. Salaries of Teaching staff ..	4,72,879
Interest from Endowments ..	1,51,436	2. Salaries of Administrative and Lower Staff ..	1,99,703
Government Grant ..	7,49,000	3. Equipment, apparatus and appliances ..	3,86,477
	<hr/> 12,82,283	4. Contingencies and Consumable Stores	72,990
		5. Research Expenses	42,402
Proportion of Government grant to the other sources of income 58.4 per cent		6. Examination Expenses ..	70,523
		7. Athletics and games	4,192
		8. Library ..	40,876
			<hr/> 12,90,042

BANARAS HINDU UNIVERSITY

Introductory : Character of the University

The objects of the Banaras Hindu University, which is a teaching and residential University, are:—

- (i) to promote the study of the Hindu Shastras and of Sanskrit literature generally as a means of preserving and popularising for the benefit of the Hindus in particular and of the world at large in general, the best thought and culture of the Hindus, and all that was good and great in the ancient civilization of India ;
- (ii) to promote learning and research generally in arts and science in all branches ;
- (iii) to advance and diffuse such scientific, technical and professional knowledge, combined with the necessary practical training, as is best calculated to help in promoting indigenous industries and in developing the material resources of the country ; and
- (iv) to promote the building up of character in youth by making religion and ethics an integral part of education.

The University is an All-India institution and is open to persons of all castes and creeds, and so are its free studentships, stipends, general scholarships of merit and fellowships. It is denominational only to the extent of making special provision for imparting instruction in Hindu Theology and Religion and in making instruction in Hindu Religion compulsory* in the

* The University shall be open to persons of either sex and of whatever race, creed, caste or class, and it shall not be lawful for the University to adopt or impose on any person any test whatever of religious belief or profession in order to entitle him to be admitted therein, as a teacher or student, or to hold any office therein, or to graduate thereat, or to enjoy or exercise any privilege thereof, except in respect of any particular benefaction accepted by the University, where such a test is made a condition thereof by any testamentary or other instrument creating such benefaction.

Provided that nothing in this section shall be deemed to prevent religious instruction being given in the manner prescribed by the Ordinances to those who have consented to receive it.

case of Hindu students. The University was incorporated in 1915 and as there was already a fully equipped College in existence, the Central Hindu College, Banaras, the work of the University began in 1916. The University has since been removed to a magnificent site of 1300 acres in which have been laid out the various buildings.

The University at present consists of fourteen constituent Colleges:—

- (1) Sanskrit Mahavidyalaya
- (2) Central Hindu College
- (3) Central Hindu College (Kamachha Section)
- (4) Women's College
- (5) Teachers' Training College
- (6) College of Science
- (7) College of Technology
- (8) Engineering College
- (9) College of Mining and Metallurgy
- (10) College of Agriculture
- (11) Law College
- (12) College of Ayurveda
- (13) College of Indology
- (14) College of Music and Fine Arts.

In addition to these, there are five affiliated local Colleges, namely:

- (1) D. A. V. College,
- (2) Besant College,
- (3) Vasanta College for Women,
- (4) Harish Chandra College,
- (5) Udai Pratap College.

Besides these institutions, the University has a School Board which looks after the management of its three schools:

- (1) Central Hindu School for boys,
- (2) Central Hindu School for girls,
- (3) Ranvir Sanskrit Pathasala.

The first two prepare students for the Admission Examination and the third for the Pravesika Examination of the University.

The Central Hindu College (Kamachha Section), the Besant College, the D. A. V. College, the Vasanta College for Women, the Harish Chandra College, the Udai Pratap College and the three schools are situated within the municipal limits

of Banaras. The remaining institutions are on the University campus outside the city of Banaras.

Constitution of the University

The authorities of the University are

1. The Court which is the supreme Governing Body ;
2. The Executive Council which is the Executive body of the University ;
3. The Academic Council which is the Academic body of the University ;
4. The Standing Committee which is the Executive body of the Academic Council ;
5. The Finance Committee ;
6. The Faculties.

The Faculties of the University are

1. Oriental Learning ;
2. Theology ;
3. Arts ;
4. Science ;
5. Technology ;
6. Law ;
7. Ayurveda (Medicine and Surgery) ;
8. Music and Fine Arts.

Officers and Staff of the University

Visitor

The President of India, (Dr. Rajendra Prasad).

Chief Rector

The Governor of the State of Uttar Pradesh, (Shri K.M. Munshi).

Chancellor

Lieut.-General His Highness Maharaja Sir George Jayaji Rao Surendra Bahadur, G.C.S.I., G.C.I.E., of Gwalior, Raj Pramukh of Madhya Pradesh.

Pro-Chancellor

Col. His Highness The Maharao Sri Bhim Singhji Bahadur, K.C.S.I., of Kotah, Upraj Pramukh of Rajasthan.

Vice-Chancellor

Acharya Narendra Deva, D.Litt., M.A., LL.B.

Pro-Vice-Chancellor

Prof. V. V. Narlikar, B.Sc. (Bombay), M.A., (Cantab.), F.R.A.S.,
F.N.I., F.A.Sc., F.N.A.Sc.

Treasurer

Sri Jyoti Bhushan Gupta.

Registrar

Dr. A. B. Misra, D.Sc., (Luck.), D.Phil. (Oxon), F.Z.S., F.R.E.S.,
F.N.A.Sc.

Deans

Oriental Learning	..	..	Pt. Ram Vyas Jyotishi.
Theology	..	..	Pt. Vishwanath Shastri.
Arts	..	..	Prof. V. V. Narlikar, B.Sc. (Bombay), M.A., (Cantab.), F.R.A.S., F.N.I., F.A.Sc., F.N.A.Sc.
Science	..	..	Dr. Y. Bharadwaj, M.Sc., Ph.D., (London), F.L.S. F.N.I.
Technology	..	..	Dr. Daya Swarup, Ph.D. (Sheffield), M.I.S.I., M.M.G.I.
Law	..	..	Prof. G. D. Joshi, M.A., LL.M. (Bom.) M.A., (Cal.).
Ayurveda (Medicine and Surgery).			Pt. Rajeshwar Dutt Shastri.
Music and Fine Arts	..		Shri Omkar Nath Thakur.

Sanskrit Mahavidyalaya

Director of Sanskrit Research, M. M. Pt. Girdhar Sharma
Chaturvedi.

Principal (Acting), Pt. Ram Chandra Dikshit.
Pradhan Ahdyapak

Pt. Raja Ram Pandey, Vyakaran.

Pt. Lakshmi Nath Jha, Nyaya.

Pt. Mahadeo Sharma Pandeya, Sahitya.

Pt. Ram Vyas Pande , Jyotish.
 Pt. Ram Chandra Dikshit, Vedanta.
 Pt. Vishwanath Shastri, Dharma Shastra.
 Pt. Hira Ballabh Shastri, Sankhya Yoga.
Adhyapakas .. 27

Central Hindu College

Principal: Prof. R. S. Tripathi, M.A., Ph.D. (London).

Professors :

Dr. C. N. Menon, M.A., Ph.D.,
 D.Litt. English.
 Prof. Raj Bali Pande, M.A.,
 D.Litt. Ancient Indian History &
 Culture.
 Prof. A. K. Das Gupta, Ph.D.,
 (On leave). Economics.
 Rao Bahadur K. V. Rangaswami
 Aiyangar, M.A. Economics (Honorary).
 Dr. Syama Charun De, M.A.
 D.Litt. Mathematics (Hony).
 Prof. V. V. Narlikar, M.A., (Cantab.) Mathematics.
 „ S. K. Maitra, M.A., Ph.D.,
 (London) Philosophy (Hony.)
 „ R. S. Tripathi, M.A., Ph.D.
 (London) History.
 „ Mukut Behari Lal, M.A. .. Politics.
 Prof. B. L. Atreya, M.A., LL.B.,
 D.Litt. Philosophy.
 Hazari Prasad Dwivedi, D.Litt. Hindi.
 Vacant Commerce.
 Dr. Surya Kant., M.A., Ph.D.,
 D.Phil. Sanskrit.

Readers :

Shri Swami Agaha Nand, Ph.D.
 (Vienna) Psychology.
 „ Baldeo Upadhyaya, M.A. Sanskrit.
 „ Brij Mohan, M.A., LL.B.,
 Ph.D. (Liverpool) .. Mathematics.
 „ S. C. Das Gupta, M.A. .. Mathematics.
 „ Jugal Kishore, M.A. .. Mathematics.
 „ R. A. Dwivedi, M.A.,
 D.Litt. English.

Shri M. M. Desai, M.A.	..	English.
„ S. L. Dar, M.A., LL.B.		Philosophy.
„ S. Jalota (Acting), M.A., Ph.D. (Lond.)	.. ..	Philosophy.
Dr. Debi Prasad Mitra, M.D. (Harvard), L.M.S.	..	Psychology.
Shri K. Bhattacharya, M.A.	..	History.
„ Awadh Behari Pandey, M.A., D.Phil. (Allahabad)		History.
„ Pran Nath, D.Sc. (Lond.)		Indo-Sumerian Studies.
„ J. N. Das Gupta, M.A. (Decca), A.S.A.A., (Lond.)		Commerce.
Dr. Jagannath Prasad Sharma, M.A., D.Litt.	.. ..	Hindi.
Pandit Vishwanath Prasad Mishra, M.A.	.. ..	Hindi.
Vacant	.. ..	Bengali.
Lecturers	.. ..	65
Fellows	.. ..	6
Instructors	.. ..	2

College of Indology

Principal: Dr. Raj Bali Pande, M.A., D.Litt.
(Acting)

Professors :

Dr. Raj Bali Pande, M.A., D.Litt	Indian History & Culture.
T. R. V. Murti, M.A., D.Litt.	Sanskrit.
Dr. Surya Kant, M.A., Ph.D., D.Phil.	.. .. Language and Literature.

Reader

Dr. V. S. Agrawala, M.A., Ph.D., D.Litt. Art and Architecture.
---	-----------------------------

Lecturers	.. ..	5
Research Fellows	.. ..	6

Women's College

Principal: Mrs. K. Venkateshwaran, M.A.

Lecturers	.. ..	25
Tutors	.. ..	5

Teachers' Training College

Principal: Dr. P. N. Rozdon, B.A., Ph.D. (Edin.)

Reader: Dr. P. N. Rozdon, B.A., Ph.D. (Edin.)
(Acting)

Lecturers 12

Instructors 4

College of Science

Principal: Prof. S. S. Joshi, D.Sc. (London).

Professors:

S. S. Joshi, D.S.c., (London) .. Chemistry.

A. B. Misra, D.Sc., D.Phil.
(Oxon.) Zoology.

B. Dasannacharya, M.A., D.Phil.
(Munich) Physics.

R. K. Asundi, M.Sc., Ph.D.
(Lond.) E.A.Sc., E.N.I. .. Physics.

Raj Nath, M.Sc., Ph.D.,
(London), D.I.C., (London)
F.N.I. Geology.

C. V. Raman, Kt. D.Sc.,
F.R.S., N.I. Physics (Hony.)

N. C. Nag, M.A., F.I.C. .. Chemistry (Hony.)

Dr. B. K. Singh, Sc.D., (Cantab) Agri. Chemistry (Hony.).

Dr. S. S. Bhatnagar, Kt.O.B.E.,
D.Sc., F.Inst. P., F.I.C.,
F.R.S. Chemistry (Hony.)

H. L. Chibber, M.Sc., D.Sc.,
(London) Geography.

V. S. Dubey, Ph.D. (Lond.),
D.I.C. Economic Geology (Hony.)

Dr. P. Parija, M.A. (Cantab.),
O.B.E., D.Sc., F.N.I.,
I.E.S. Botany (Hony.)

Dr. Y. Bharadwaja, M.Sc., Ph.D.
(Lond) F.L.S., F.N.I. .. Botany.

Readers:

Shri S. R. Khastgir, M.Sc.,
(Cal.), Ph.D., D.Sc. (Edin.)
M.I.R.E., (New York)
F.N.I. Physics.



Dr. C. Sogani, D.Sc.	.. ..	Physics.
Dr. K. R. Mehta, M.Sc., Ph.D.	.. ..	Botany.
Dr. Ram Nagina Singh, M.Sc., D.Sc.	.. ..	Botany.
Major Chandra Bal, M.Sc.	.. ..	Zoology.
Dr. Sarju Prasad, M.A., M.Sc., D.Sc.	.. ..	Chemistry.
Shri D. K. Chakravarti, M.Sc.	.. ..	Geology (Petrology).
Lecturers .. ..	.. ..	68

College of Technology

Principal :

Dr. Gopal Tripathi, M.Sc., M.Sc. (Michigan), D.Sc.
(Acting)

Professor :

Dr. Gopal Tripathi, M.Sc.,
M.Sc. (Michigan), D.Sc. Chemical Engg.

Readers :

Dr. R. Charan, B.Sc., (Sheffield)
Dip Glass Tech. (Sheff.)
A.M. Tech. I. (Gt. Brit.),
D.Sc., (Prague Glass Tech.)

Shri H. N. Roy, Hon. Ceramic
Dip. Ceramic Engineer
(U. S. A.)

Shri N. K. Basu, M.Sc. Ceramics.
Pharmaceutical Chemistry.

Dr. Sankatha Prasad, Ph.D.,
D.Sc. Pharmaceutical Chemistry.

Lecturers 28

Tutors 2

Research Fellows 2

Engineering College

Principal : Prof. M. Sen Gupta, B.Sc. (Cal.), B.Sc. (Hons.),
(Glasgow), A.M.I.E.E., C.P.E., Inst.P. (India).

Professors :

M. Sen Gupta, B.Sc., (Cal.),
B.Sc., (Hons.) (Glasgow),
A.M.I.E.E., C.P.E.,
F.Inst.P. (India) Electrical Engineering.

B. M. Singh, B.Sc., (Eng.),
M.I.E. (Ind.), A.M.I.
Mech. E. Mechanical Engineering.

Readers :

Shri V. P. Pandey, B.Sc., (Eng.)
A.M.I.E. (India) .. Civil Engg.
,, B. D. Kelkar, B.E. (Eng.)
M.I.E. (Ind.), A.S.M.E. Mechanical Engineering.
,, C. C. Chakravarty, B.Sc.,
(Eng.), M.I.E. .. Mechanical Engineering.
,, S. S. Gairola, B.Sc., (Eng.)
M.S. in C E. (Tenn.),
A.M.A.S.C.E., M.A.C.U.,
M.I.N.N.S., F.E.M.I.E. .. Mech. Engineering.
,, V. M. Rane, B.Sc. (Eng.)
A.M.I.E. Economics.
,, Pran Nath, M.Sc., D.I.
(Lond.) D.Sc., F.S.S.
(Paris) Engg. Mathematics.
,, Shankar Lal, B.Sc. (Eng.),
M.Sc. (Eng.) (Lond.) D.I.I.Sc. Mechanical Engineering.
,, G. C. Mukerji, M.Sc.,
M.A.I.E.E., M.I.R., E.
A.I.E.E. Electrical Engineering &
Applied Physics.
,, P. C. Dutt, B.Sc. (Eng.),
M.I.E. (Ind.) Electrical Engg.
,, M. G. Pande, B.Sc., (Eng.)
A.M.I.E. (Ind.) Electrical Engg.

Lecturers 25

Tutor 1

College of Mining and Metallurgy

Principal : Prof. Daya Swarup, Ph.D. (Sheffield), M.I.M.,
M.I.S.I.

Professors :

Daya Swarup, Ph.D. (Sheffield),
M.I.M., M.I.S.I. .. Metallurgy.
M. P. Netarwala, B.Sc.,
(Mining), M.Sc., (Geol.),
M.E.M., (Colo. U. S. A.),
Sc.D., (M.I.T.) .. Mining.

Readers :

Shri V. G. Iyer, B.A., F.R.I.C.,	..	
M.Inst. F.	..	Assaying
„ U. V Bhat, B.Sc., (Met.),		
Ph.D. (Sheffield)	..	Metallurgy.
„ D. Bhattacharya	..	Mine Surveying.

Lecturers 19

College of Agriculture

Principal : Shri R. L. Sethi, M.Sc., (Punjab), B.Sc., (Agri.) (Edn.)

Professors :

Shri R. L. Sethi, M.Sc.,
(Punjab), B.Sc., (Ag.) (Edn.) Irwin Professor of Agriculture.

Readers :

Dr. R. S. Choudhury, M.Sc.,		
Ph.D. (Carnoll), (U.S.A.)		
D.Sc.	..	Agri. Bot. (Phylogist.)
Dr. S. Kasinathan, Ph.D.,		
(Lond.), D.I.C.	..	Agri. Chemistry.
Dr. Akshaiber Lal, M.Sc., Ph.D.		
(Lond.)	..	Plant Pathology.
Dr. K. D. Baweja, M.Sc., Ph.D.		
(Lond.), F.E.S.I.	..	Entomology (Hony.)

Lecturers 15

Instructor 1

Law College

Principal : Prof. G. B. Joshi, M.A., M.L., LL.M.

Professor : G. B. Joshi, M.A., LL.M.
(Bom.) M. L., (Cal.)

Readers : Shri V. V. Deshpande,
LL.M. (Bom.) ..

Lecturers 2

College of Ayurveda

Principal : Dr. M. S. Verma,
M.B.B.S. (Acting).

Professor : Pt. Satya Narain
Shastri .. Ayurveda & Medicine.

Readers :
Pt. Rajeshwar Dutt Shastri Ayurvedic Medicine.
Dr. G. P. Das Gupta, M.B. Medicine.

Lecturers 12

Tutors and Demonstrators .. 8

Central Hindu College (Kamachha Section)

Principal : Shri V. P. S. Malani, M A.

Lecturers 44

Part-time Lecturer (Research students) 7

Instructors 2

College of Music and Fine Arts

Principal : Sangit Marthand Pt. Omkar Nath Thakur.

Research Reader : Shri Shiva Sharan

Lecturers 2

Instructors 6

Number of students (1951-52)

The total number of students on the rolls of the University on 31st March, 1952, was 7916 out of which 427 were girl students. The number of students residing in Hostels was 3116, Approved Lodges 907, and Day Scholars 3893. The distribution of students in the various institutions and courses is shown in the statement given below :

No. of
students in
the Colleges.

1. College of Oriental Learning and College of Theology	302
2. Central Hindu College	2,029
3. College of Science	1,227
4. College of Technology	318
5. Engineering College	581
6. Teachers' Training College	184
7. College of Mining and Metallurgy	178
8. College of Agriculture	160
9. Law College	422
10. College of Ayurveda	422
11. Women's College	230
12. College of Music and Fine Arts	174
13. Central Hindu College (Kamachha Section)	1,655
14. College of Indology	23
15. Library Diploma	11
Total ..	<u>7,916</u>

Number of students in affiliated colleges

	Number
1. Harish Chandra College	90
2. Udai Pratap College	229
3. D. A. V. College	388
4. Besant College, Raj Ghat	60
5. Vasanta College for Women	78
Total ..	<u>845</u>

Number of students in schools affiliated to the University

1. Central Hindu Boys' School	890
2. Central Hindu Girls' School	958
3. Ranbir Sanskrit Pathshala	40
Total ..	<u>1888</u>

Examination Results of Final years of 1952 :

Examination	No. appeared	No. passed	Percentage of passes
1. Admission	997	466	46.7
2. I. A.	327	133	40.7
3. I.Com.	183	118	64.4
4. I.Sc.	526	282	53.6
5. B.A.	799	572	71.7
6. B.Com.	204	192	94.1
7. B.Sc. (Pure)	424	323	76.2
8. B.Sc. (Ind. Chem.)	12	9	75.0
9. M.A.	405	332	81.9
10. M.Com. (Final)	54	53	98.1
11. M.Sc.	196	170	86.7
12. M.Sc. (Tech.)	29	29	100
13. M.Sc. (Agri.)	25	15	60
14. B.Ed.	147	146	99.3
15. M.Ed.	23	22	95.7
16. LL.B. (Final)	96	75	78.1
17. B.Sc. (Engg.) Part II	148	148	100
18. B.Sc., Mining	13	13	100
19. B.Sc., Metallurgy	26	25	96.1
20. B.Sc., Glass Pt. II	5	5	100
21. B.Sc., Ceramics Pt. II	6	6	100
22. B.Pharm. 3rd Year	5	5	100
23. M.Pharm	9	9	100
24. 3rd. Prof. Pt. B. VI Yr. (Ayurveda)	46	36	78.3
25. Diploma in Soap	1	1	100
26. Diploma in German	6	4	66.6
27. Diploma in French	4	2	50
28. Diploma in Library Science	12	11	91.7
29. Praveshika	18	11	61.1
30. Madhyama Part II	32	32	100
31. Shastri Part II	38	35	92.1
32. Karmkand Shastri	1	1	100
33. Sampurna Shastri	4	4	100
34. Diploma in Painting	4	4	100
35. Diploma in Sculpture	2	2	100
36. Certificate in Statistical Methods	40	31	77.5
37. Diploma in Clinical Psy- chology	5	5	100
38. Ph.D.	11	10	90.9

N.B. (1) Results of 'Previous' Examinations which are also University Examinations now are not given.

Election and appointment of Vice-Chancellor under the new Act and Statutes:

ACHARYA NARENDRA DEVA, D.Litt., M.A., LL.B., was elected Vice-Chancellor of the University by the Executive Council and approved of by the Visitor, the President of India (Dr. Rajendra Prasad) on 6th December, 1951, for a period of 6 years.

Election and appointment of Pro-Vice-Chancellor: Prof. V. V. Narlikar, B.Sc. (Bom.), M.A. (Cantab.), F.R.A.S., F.N.I., was appointed Pro Vice-Chancellor on 24th December 1951 for a period of two years.

Appointment of the Registrar under new Act and Statutes: Dr. A. B. Misra, (Luck.), D.Phil. (Oxon.), F.Z.S., F.R.E.S., F.N.A.Sc., was appointed Registrar on 1st August 1952 by the Executive Council of the University for a period of three years.

Appointment of the Provost under new Act and Statutes: Dr. B.L. Atreya, M.A., LL.B., D.Litt., was appointed Provost on 27th January 1952 by the Executive Council of the University for a period of three years.

Appointment of the Proctor under new Act and Statutes: Major Chandra Bal, M.Sc., was appointed Proctor on 18th November 1952, by the Vice-Chancellor and the Executive Council of the University for a period of two years.

List of the teaching staff appointed in the year 1951-52.

Name with titles	Post	College
1. Shri Shanti Lal Jain, B.Sc. (Engg.), M.S., (Ind.) (Eng.)	Reader in Engineering Economics	Engineering College.
2. „ Ganesh Singh, B.Sc., (Eng.)	Reader in Engineering Drawing & Design.	Do.
3. „ V. M. Rane, B.Sc. (Eng.), A.M.I.E., (Ind.)	Reader in Mech. Engg.	Do.

Name with title	Post	College
4. Shri K. Subramaniam, B.Sc. (Hons.) M.Sc.	Reader in Automobile Engineering	Engineering College
5. „ N. K. Datta, B.Sc., (Engg.)	Lecturer in Mech. Engg.	Do.
6. „ Vikramaditya Singh, B.Sc., (Eng.)	„ „ „	Do.
7. „ K. R. Asundi, B.Sc., (Eng.) D.I.I. Sc., (Temp.)	„ „ „	Do.
8. „ Sethuram Rao, B.E., M.E.	„ Civil „	Do.
9. „ S. L. Kapoor, B.Sc., B.C.E.	„ Applied Mechanics & Graphics	Do.
10. „ R. L. Sethi, M.Sc., (Punjab) B.Sc., (Ag.) (Edin.)	Irwin Professor of Agriculture & Principal of the College of Agriculture	Agricultural College.
11. „ Surendra Nath Saksena, M.Sc., (Alld.) (Temp.)	Lecturer in Agricultural Chemistry	Do.
12. Dr. S. P. Pathak, M.Sc., Ph.D.	Reader in Industrial Chemistry	College of Technology
13. Shri Satya Deva Bhasin, M.Sc., M.S.E. (Chem.)	Reader in Inorganic Rechnology	Do.
14. „ V. V. Gokhale, M.Sc, M.Ch.E.	Lecturer in Organic Tech.	Do.
15. „ K. Dattatreya Gode, M.Pharm.	Lecturer in Pharmaceutics	Do.
16. „ P.P. Satsangee, M.Sc., M.Ch. E. D. Ch. E.	Lecturer in Chem. Engg.	Do.
17. Dr. T. R. V. Murti, M.A., D.Litt.	Professor of Indian Civilisation & Culture	College of Indology.
18. „ Surya Kanta Shastri Vyakarana-tirtha	Mayurbhanj Professor of Sanskrit	Central Hindu College.

Name with titles	Post	College
19. Shri P. S. Jain, M.A., Nyaya Madhyama, Tripitakacharya.	Lecturer in Pali	Central Hindu College
20. „ Bhanwar Lal, Garg, M.A.	Lecturer in Civics	Do.
21. „ Gir Raj Prasad Gupta, M.Com.	Lecturer in Commerce	Do.
22. Dr. Ram Briksh Singh, M.A., Ph.D.	Lecturer in History	Do.
23. Shri B. N. Singh, M.Sc.	Instructor in Statistics	Do.
24. „ S. N. Singh, M.A.	„ „	Do.
25. „ Dharam Pratap, M.Sc., LL.B., LL.M.	Lecturer in Law	Law College
26. „ Ramji Tewari, M.Sc.	Lecturer in Mathema- tics.	Central Hindu College (Kamachha Section)
27. „ V.L.N. Sharma M.Sc.	„ „	Do.
28. „ L. V. Venkata- raman, M.Sc.	„ „	Do.
29. „ T. S. Balasubra- maniam, M.Sc.	„ „	Do.
30. „ D. N. Rao, M.Sc.	Lecturer in Botany	Do.
31. „ Bhri gunath Prasad M.Sc.	„ Zoology	Do.
32. „ Ram Naresh Varma, M.A.	„ Hindi	Do.
33. Dr. B. D. Sudh- indra, M.A., Ph.D.	„ „	Do.
34. Shri Shridhar Govind Lala, M.Sc.	„ Physics	Do.
35. „ C. Purushottaman, M.Sc.	„ „	Do.

Name with titles	Post	College
36. Shri Mahendra Pratap Varma, M.Sc.	,,	Central Hindu College Kamachha Section
37. Dr. R. S. Sankhale, Ph.D.	Lecturer in Chemistry	Do.
38. Shri Uma Shankar Dhar, M.Sc.	,,	Do.
39. ,, B. R. Sant, M.Sc.	,,	Do.
40. Dr. S M. Deshpande, M.Sc., Ph.D.	,,	Do.
41. Shri Hari Prasad Kulshrestha, M.Com.	Commerce.	Do.
42. ,, Devendra Pratap Narain Singh, M.Com., LL.B., Sahityaratna.	,,	Do.
43. ,, Ram Sharan Vajpai, M.Com.	,,	Do.
44. ,, Baldeva Das, M.Sc., B.T.	Instructor in Mathematics	Engg. College.

Free studentships, Scholarships and Medals.

No fees are charged from the students of the Colleges of Oriental learning and Theology ; ten per cent of the total number of students are exempted from the payment of tuition fees in the Central Hindu College, Women's College, Teachers' Training College, College of Science and the College of Ayurveda, three per cent in Commerce five per cent of students in the College of Technology of Mining and Metallurgy, College of Agricultural Research and Law College and two per cent of students in the Engineering College.

In addition to these University free studentships, there are nearly 54 different kinds of scholarships given out of different donations and endowments made by the public, Rajas, Maharajas, Landlords and Rais of India. These scholarships are generally awarded yearly on consideration of poverty, merit, caste and creed according to conditions laid down by the donors

and approved by the University. Further, the Central Government and the State Government also give some financial help to students of backward classes, scheduled castes and Momin and Ansari communities in the form of scholarships. Besides these community scholarships, both the Governments give some financial help to refugee students and sufferers of 1942 in the form of loans.

Nearly 900 students are given scholarships, Fellowships and other financial help from the University Fund, by the Provincial and Central Governments and by the Harijan Sahayak Sangh of Uttar Pradesh.

There are nearly 10 Research scholarships given to Research students of Sanskrit and Hindi and in College of Indology.

In addition to a number of endowed scholarships under the management of the University, the University has made provision for awarding the following scholarships :—

College of Oriental Learning and Theology

Madhyama Classes

Twenty four scholarships of Rs. 4 each for first year students.

Twenty scholarships of Rs. 5 each for second year students.

Twenty scholarships of Rs. 5 for third year students.

Shastri Classes

Ten scholarships of Rs. 6 each for first year students.

Ten scholarships of Rs. 7 each for second year students.

Ten scholarships of Rs. 7 each for third year students.

Acharya Classes

Six scholarships of Rs. 8 each for first year students.

Six scholarships of Rs. 8 each for second year students.

Six scholarships of Rs. 9 each for third year students.

Central Hindu College and College of Science

Twelve scholarships of Rs. 10 each for the first year students of I.Com., I.A., I.Sc.

Twelve scholarships of Rs. 10 each for the second year students of I.A., I.Com., and I.Sc.

Ten scholarships of Rs. 12 each for the third year students of B.A., B.Sc., and two for B.Com.

Ten scholarships of Rs. 12 each for fourth year students of B.A., and B.Sc., and two for fourth year B.Com.

Ten scholarships of Rs. 20 each for the post-graduate students of M.A., and M.Sc.

U. P. Government Scholarships for the Teachers' Training College

Sixty scholarships of Rs. 20 each per mensem are awarded each year, out of which 10 scholarships are given to M.Ed., students and 50 to B.Ed., students.

Scholarships for Women Students

Twentysix Birla scholarships, each of the monthly value of Rs. 15, and four each of the monthly value of Rs. 10 and, Rajarshi scholarships of the monthly value of Rs. 10 besides some others are awarded to the women students studying in the University.

Laboratories, Gardens and Farms

Laboratories in the following subjects are fully equipped: Chemistry, Physics, Botany, Zoology, Geology, Industrial Chemistry, Ceramics, Glass Technology, Pharmaceuticals, Mechanical and Electrical Engineering, Mining, Metallurgy and Fuel Technology and Agriculture.

An extensive Botanical garden, an Ayurvedic garden and Agricultural farms are maintained for the study of plants, herbs and crops.

Library

The total number of books in the Library which to a large

extent has been created by bequests, special donations, and Government and University grants, is over Rs. 1,80,000. The Library is housed in the Sayaji Rao Gaikwad Library for which the Maharajah of Baroda donated two lakhs of rupees. The books are classified according to the Dewey Decimal Classification Scheme and there is an up-to-date Card Catalogue of the Dictionary type adopting the Anglo-American Code of Cataloguing. Leading periodicals in Sciences and Humanities which are not received gratis are subscribed for.

Reference and Readers' advisory service is organized with a trained group of Reference Assistants.

The University has been conducting a professional Diploma Course in Library Science under the Faculty of Arts, of the duration of an academic year, to impart training and study to graduates entering the Library profession. Steady progress has been maintained in this direction from 1942. The U. P. Government has instituted a Scholarship of Rs. 2,000 per annum for the study of Library Science in this University, and the institution of higher degree courses has been engaging the attention of the authorities.

Provision for Research

Facilities for research exist in the following subjects :—

Arts	English, Philosophy, Psychology, Sanskrit, Hindi, Economics, History, Ancient Indian History and Culture, Indology, Political Science, Mathematics and Geography.
Science	Chemistry, Physics, Botany, Zoology, Geology, Mathematics and Geography.
Technology ..	Industrial Chemistry, Ceramics, Glass Technology, Pharmaceutics, Mining, Metallurgy, Agriculture and Engineering.

There are 19 Fellowships as follows :—

3 Holkar Fellowships of the annual value of Rs. 3,000 each for study abroad.

3 Sayaji Rao Gaekwad Fellowships of the monthly value of Rs. 75 each.

3 Mayurbhanj Fellowships of R. 75 per month.

There are other scholarships in the College of Indology several U. P. research scholarships and about 50 junior and senior research scholarships besides about a dozen research assistantships under various schemes sanctioned by the Government of India.

The following extension Lectures were delivered under the auspices of Pandit Madan Mohan Malaviyaji Endowment in the Universities of Allahabad (1950), Lucknow (1951) and Delhi (1952):—

- (1) The metaphysical tradition in Indian Culture.
- (2) The concept of Sakti and its significance for Epistemology, Ontology, Ethics and Religion.
- (3) Can there be a 'Perfect' God in a 'Perfect' religion ? (The philosophical bases of Indian 'Theisms').
- (4) The Notion of 'Absolute' in the Saivagamas and in the other Brahminical, Buddhistic and Western Absolutisms.
- (5) The idea of God in Whitehead and Saivism.
- (6) Metaphysical differences between Saivism and Vaisnavism.

The Associations in the University

1. The University Parliament.
2. The University Union.
3. The Boarders' Unions.
4. The Athenaeum for study and research in English Literature.
5. The Scientific Society.
6. The Engineering Society.
7. The Mining and Metallurgical Students' Society.
8. The Economic Society.
9. The Historical Society.
10. The Sanskrit Association.
11. The Philosophical Association.
12. The Mathematics Association.
13. The The Hindu Sahitya Sabha.

Group C(i) Hindi
or

Any other Modern Indian Language.

(ii) Any two or three of the following subjects :

- (a) Music (Vocal).
- (b) Music (Instrumental).
- (c) Painting.
- (d) Domestic Science.

(iii) Any two or one of the following subjects :

- (a) English.
- (b) History.
- (c) Geography.
- (d) A Classical Language (Sanskrit or Pali or Persian).
- (e) Mathematics.
- (f) General Science.
- (g) Civics.
- (h) Hindi (for those who do not take Hindi under (i) above).

Intermediate Examination in Arts and Science.—Candidates who **have passed** the Admission Examination or an equivalent Examination are admitted to the courses of study for the *Intermediate Examination in Arts and Science*.

Candidates who have passed the following examinations may also be admitted in the I. A., and I.Sc., classes after **satisfying** the conditions given as below—

1. The **Senior Oxford** Local Examination,
2. The **Senior Cambridge** Local Examination,
3. The Final Examination prescribed for European schools,
4. The Diploma Examination in a Chief's College.

Provided that candidates who have passed the Cambridge school certificate (Senior Local) Examination in five of such subjects as are recognised for the Admission examination of the Banaras Hindu University may be admitted to the Intermediate (Arts or Science) examination in the academical year following that in which they pass the Cambridge School Certificate (Senior Local) Examination if they have pursued a regular course of study in a constituent college of the University for not less than one academic year preceding the examination. The Standing Committee may also so admit candidates coming from outside India, who produce certificates of having passed

examinations, which in the opinion of the Standing Committee are equivalent to the above mentioned examinations or who have, in the opinion of the Standing Committee, if necessary, after examination, attained a degree of knowledge equivalent to that expected at the Admission Examination. Provided that a candidate who has passed the Previous Examination in Sanskrit or has passed the Admission Examination or any examination as equivalent thereto with Sanskrit, may take up any one of the optional subjects in lieu of Sanskrit.

Intermediate Examination in Commerce.—A candidate who is eligible for admission to courses of studies for the Intermediate Examination in Arts or Science is eligible for admission to courses of studies for the Intermediate examination in Commerce. The Examination is held at the end of two academic years.

The following are the subjects of examination: Compulsory subjects: (1) English (2 papers), (2) Composition in a Modern Indian Language, (3) Book-keeping and Accountancy (2 papers), (4) Business Methods and Correspondence, (2 Papers), (5) Elementary Economics and Commercial Geography (2 Papers), (6) One of the following optionals (2 Papers each) Steno-typing (Shorthand and Typewriting), Elements of Banking, Elements of Industrial Organisation, Mathematics.

Note.—Candidates appearing at the Admission examination in Arts and Science or the B.A., B.Sc., B.Ed., or M.A., Examinations will have the option of answering question papers in the Hindi language and the Devanagari Script in all subjects except English.

B.A.—A candidate for this examination must study for a period of two years in the University after passing the Intermediate Examination in Arts or Science. The subjects of the examination are the following:—

I. Compulsory subjects:

- (i) English.
- (ii) Sanskrit.
- (iii) Composition in a Modern Indian Language.

II. Optional subjects:

- (iv) and (v) Any two of the following:

- (a) Any other Classical Language (Persian, Arabic or Pali).
 - (b) A Modern European Language including English.
 - (c) Philosophy.
 - (d) Psychology.
 - (e) Mathematics.
 - (f) History.
 - (g) Ancient Indian History and Culture.
 - (h) Economics.
 - (i) Geography.
 - (j) Politics.
 - (k) A Modern Indian Language and Literature (Hindi only).
 - (l) Music.
 - (m) Painting.
 - (n) Domestic Science.
- } For Women candidates only

Provided that a candidate who has passed the Previous Examination in Sanskrit or has passed the Admission Examination or any Examination accepted as equivalent thereto or has passed the Intermediate Examination with Sanskrit as one of his subjects may take up any one of the optional subjects in lieu of Sanskrit.

Honours.—A candidate may obtain Honours in any subject if he passes in the First Class in that subject as well as in a more advanced course in that subject prescribed for the purpose provided he obtains at least 45 per cent. marks in the aggregate of the remaining subjects.

Composition in a Modern Indian Language does not count as an independent subject for this purpose.

B.Com. Examination.—A candidate for this examination must study for a period of two years in the University after the I. Com., examination of this or any other University. The subjects of the examination are the following :—

I. Compulsory subjects :

- (i) English.
- (ii) Composition in a Modern Indian Language.
- (iii) Economics Group :

- (a) Principles of Economics, (b) Money, Banking and Finance, (c) Modern Economic Development of India.

- (iv) Commerce Group :
 - (a) Accountancy.
 - (b) Business and Industrial Organisation.
 - (c) Statistics.
 - (d) Industrial and Commercial Law.

II. Optional subjects: One of the following groups of optional subjects:—

- (i) (a) Advanced Accountancy.
- (b) Auditing and Cost Accounting.
- (ii) (a) Advanced Banking Principles.
- (b) Law and Practice of Indian Banking.
- (iii) (a) Rural Economics.
- (b) Co-operation.
- (iv) (a) Trade.
- (b) Transport.
- (v) (a) Insurance.
- (b) Elements of Secretarial science.

M.A.—Candidates for the Degree of Master of Arts shall be required to pass two examinations, the first called “*M.A. (Previous)*” and the second “*M.A. (Final)*”. The *M.A. (Previous)* Examination shall be open to candidates who have obtained the degree of *B.A.*, or *B.Sc.*, of the University or, in special cases, by permission of the Standing Committee of the Academic Council, of some other Indian University established by an Act of Legislature, or of the University of Mysore and have, after obtaining that degree, completed a regular course of study for not less than one year in the University or in a constituent College. The Standing Committee of the Academic Council may also in special cases, permit candidates who have obtained the degree of *B.Com.* in an Indian University established by an Act of on Indian Legislature, or the University of Mysore, provided they have satisfied the other conditions in this regulation to appear at the examination (in Economics for the *M.A. Degree*).

The *M.A. (Previous)* Examination (in Sanskrit, Hindi and Pali only) shall also be open to candidates who have passed the Acharya Examination in Sanskrit in the Faculty of Oriental Learning and Theology of the University and have pursued a regular course of studies for not less than one academic year in the University or in a constituent college and on passing the *M.A. (Final)* Examination, shall be awarded the degree of Master of Arts of the University.

A *bona fide* teacher teaching in any recognised school or institution after completing service of 18 months may also be admitted to the examination by the special permission of the Standing Committee of the Academic Council.

A candidate may be examined in any one of the following subjects :—

- (1) English ; (2) Sanskrit, (3) Pali, (4) Any other classical language, (5) Philosophy, (6) Indian Philosophy and Religion, (7) Psychology, (8) History, (9) Ancient Indian History and Culture, (10) Economics, (11) Geography, (12) Politics, (13) Mathematics, (14) A Modern Indian Language and Literature.

No candidate shall be admitted to the M.A. (Fnal) examination, unless he has passed the M.A. (Previous) Examination and has prosecuted a regular course of study thereafter for not less than one academic year in the constituent University.

Nearly half of all the papers prescribed for each subject have to be taken in the M.A. (Previous) Examination and the rest in the M.A. (Final) Examination.

M.Com.—The University has instituted courses for the M.Com. Examination spreading over a period of two years. There is an M.Com. (Previous) examination at the end of the first year and the M.Com. (Final) Examination at the end of the second year.

The M.Com. Previous examination shall be open to candidates who have obtained the degree of B.Com. of this University or of any other Indian University established by an Act of Legislature. The subjects of M. Com. Previous examination are :—

- (a) Two compulsory papers :—

Paper I : Principles of Economic Analysis.

Paper II : Modern Economic Development of England, U. S. A., Germany, U. S. S. R. and Japan.

- (b) Two optional papers to be chosen from the following :—
 - (i) Foreign Exchange.
 - (ii) Organisation of Markets.
 - (iii) Transport.

- (iv) Labour Economics and Labour management.
- (v) Organisation of Industries.

The M.Com. (Final) Examination shall consist of (a) either the Diary of Practical Training, which shall carry 100 marks or a dissertation carrying 100 marks and (b) the following three papers:—

Compulsory : Paper I: Applied Economics.

Any two papers to be chosen from the following :

- (i) Modern Finance.
- (ii) Business Administration.
- (iii) International Trade.
- (iv) Statistics.

Doctor of Philosophy.—The Ph.D. Degree is conferred on candidates who possess the qualifications and have pursued a course of research at the University or at such other institutions as may be recognised by the Syndicate, according to the provisions contained in these regulations.

It is open to—

- (a) those who have passed the examination for the degree of M.A., M.Sc., M.Sc. (Tech.), M.Sc. (Agriculture), M.Pharm, and M.Com. of the University or an examination of any other University recognised as equivalent to any of the above-mentioned examinations and who have pursued a regular course of research at the University for not less than six terms. The terms in an academic year are: July to September, October to December and January to April.
- (b) those who have passed the Final examination for the degree of B.Sc.(Min.), B.Sc.(Met.) and B.Sc. (Eng.) of this University or an examination of any other University recognised as equivalent to any of the above mentioned examinations, and who have pursued a regular course of research at the University for not less than three academical years.
- (c) those candidates who have passed the examination for the degree of M.A., M.Sc., M.Sc.(Tech.), M.Sc., (Ag.), M.Pharm. and M.Com. of the University or the final examination for the degrees of B.Sc.(Min.

B.Sc.(Met.), and B.Sc. (Eng.) of the University and have pursued a regular course of research for a period of three years at any of the institutions listed hereunder.* Every candidate who intends to supplicate for the said degree shall register himself two years previous to submitting the thesis and shall communicate to the Registrar the special subject chosen by him for his thesis. No application for admission to the said degree shall be entertained unless it is supported by the Supervisor under whom he has carried on his research and the Director of the Institute who shall have to testify that the applicant is in habits and character a fit and proper person for the degree. The communication shall be placed before the Syndicate for according the necessary permission.

Doctor of Letters.—This degree is conferred after the approval of the candidate's thesis and, if necessary, after a written and oral examination.

The degree shall be open to:—

- (a) those who obtained the Ph.D. degree of this University not less than three academical years previously to the date of supplication.
- (b) those who have obtained the M.A. or M.Com. degree of this University not less than seven academical years previously to the date of supplication, and
- (c) those who are teachers of the University who have obtained the M.A., or M.Com. degree of this or any other University established by an Act of Legislature or have passed an examination recognised as equivalent thereto, and have put in not less than six years' service in the University prior to the date of supplication; provided that no candidate under clauses (b) and (c) shall be allowed to supplicate for the degree unless he has been exempted, on an application presented for the purpose, stating the grounds

* 1. Indian Institute of Science, Bangalore,
 2. The Palaeobotany Institute, Lucknow.
 3. Tata Institute of Fundamental Research, Bombay.
 4. The Indian School of Mines, Dhanbad.
 5. The Horticultural Research, Institute Saharanpur.
 6. The Nutrition Research Laboratories Coonoor.

on which such exemption is claimed, by the Research Degree Committee from having to obtain the Ph.D. degree.

Teaching

B.Ed.—The course of study is open to graduates of this or any other University and extends over a period of one year. The course of study and the scheme of examination are as follows :

The subjects of the Examination are the Theory and Practice of Education :

(A) *Theory*

There will be four papers set as follows :

1. Principles of Education.
2. History of Education.
3. Methods of Teaching.
4. School Management and Hygiene.

(B) *Practice*

This will consist of attendance at Demonstration lessons given by the members of the staff of the college, observation of criticism lessons given in the subjects taken up by a pupil teacher, practice of teaching carried on ordinarily in three subjects for at least three months under the supervision of the College staff, two criticism lessons given in the subjects offered by a pupil teacher, Art and Craft work, visit to educational institutions and Pedagogical Drawing.

A candidate may, in addition, offer as an extra subject, a special course in the methods of teaching one of the subjects prescribed for the Admission Examination or one of the following subjects :

Basic Education, Infant Education, Experimental Education, Adult Education, Vocational Education, Physical Education, Linguistic Pedagogy, Art, Music, Sculpture and Spinning and Drawing.

M.Ed.—A higher degree in Education, called M.Ed., is instituted spreading over a period of one year after B.Ed. degree.

The Examination for the degree of Master of Education shall be open to a candidate who has (i) after graduation passed the

B.Ed., B.T., or L.T. Examination or an equivalent examination held by a Provincial Government or by any University in India recognised by the law of the place in which it is situated or of any University or body which the Syndicate may from time to time recognise for this purpose, and (ii) has pursued for one session the prescribed course of study at the University.

The course of study for the M.Ed. Examination shall be confined to *either* an Advanced study in Education *or* writing of a thesis in a subject approved by the Head of the Department of Education in the University.

The Examination in the Advanced study in Education shall consist of:

- Paper I. Educational Philosophy and Theory.
- Paper II. Educational Psychology and Experimental Education.
- Paper III. History of Indian Education.
- Paper IV. A comparative study of the modern Educational Methods, practice and systems of some of the advanced countries of the world.
- Paper V. Any one of the following :
 - (i) Experimental Education,
 - (ii) Adult Education,
 - (iii) Basic Education,
 - (iv) Vocational and Educational Guidance,
 - (v) Educational Administration and Supervision.

*Diploma Examination in Modern European Languages
French, German and Italian*

Any student who has passed the Admission or an equivalent examination and is pursuing his studies in the university is eligible to appear for the Examination. The course spreads over two years.

Diploma in Library Science

With a view to improving the libraries, a Diploma examination in Library Science of one year's duration is instituted in the University. The course is open to graduates of Indian Universities. Instruction is given in the following subjects.

Group I

Library classification : Theory and Practice.

Group II

Library cataloguing : Theory and Practice.

Group III

Library Organisation,

Library Administration,

Bibliography, Book-selection and Reference Service.

Diploma in Indian Philosophy and Culture

A Post-graduate Diploma Examination in Indian Philosophy and Culture is instituted in the University spreading over a period of one year and graduates of Indian or foreign Universities are eligible for admission to this course. The course is mainly intended to foreign graduates with a view to giving them facilities for acquainting them with the Indian Philosophy and culture but it is now open to all graduates and the subjects of the Examination are : (1) Indian Philosophy, (2) Modern Indian Religious and Philosophical Thought, (3) Religions of India and (4) Hindu Social and Socio-Religious Institutions and Customs.

Diploma Examination in Chinese

A Diploma Examination in Chinese is instituted spreading over a period of two years and the course is open to those who have passed the Admission or Matriculation Examination of Indian Universities.

Music and Fine Arts

The Senate has instituted courses in Music leading to the degree of Sangitacharya. There will be four University Examinations in Music :

- (i) Sangita Praveshika extending over a period of two years.
- (ii) Sangita Madhyama (Intermediate) spreading over a period of two years.
- (iii) Sangitalankara (B.A.) spreading over a period of two years.
- (iv) Sangitacharya (M.A.) spreading over a period of three years.

There is a Research Department in the college under a professor of Research. It undertakes the collection, transcription

and edition of ancient works on Music and Fine Arts as well as the preparation of a Dictionary of Indian Musical terms. It will also guide students for Research degrees.

Diploma in Painting and Sculpture

The University has decided to start a Diploma course in painting and sculpture and two Diplomas called Junior Diploma and Senior Diploma are instituted covering a period of two years, and two years respectively. The course is open to those who have passed the Admission or Matriculation examination of Indian Universities.

Faculty of Science

The Intermediate Examination in Arts and Science under the Faculty of Arts has already been mentioned.

B.Sc.—It is a two years' course after passing the Intermediate Examination in Science.

The subjects of examination are the following :—

Any one of the following groups :

- (a) Physics, Chemistry, Mathematics.
- (b) Physics, Chemistry, Geology.
- (c) Botany, Chemistry, Zoology.
- (d) Botany, Chemistry, Geology.
- (e) Zoology, Chemistry, Geology.
- (f) Botany, Zoology, Geology.
- (g) Geology, Geography, Chemistry.
- (h) Geology, Geography, Physics.
- (i) Geology, Geography, Botany.
- (j) Geology, Geography, Zoology.

Provided that no candidate is permitted to take up group (a) or (b) unless he has passed his Intermediate Examination with Mathematics and group (c), (d) or (e) unless he has passed his Biology and in the case of a student who has passed the Intermediate Examination of any other University or Board of High School and Intermediate Education established by an Act of the Legislature, with Physics, Chemistry and Biology or Botany. Women candidates are allowed to offer Domestic Science in place of any one of the subjects in any of the groups.

A candidate may also offer English (Modern and Practical) as an extra subject.

Honours.—A candidate may obtain Honours in any subject if he passes in the First class in that subject as well as in a more advanced course in that subject prescribed for the purpose provided he obtains at least 45 per cent. marks in the aggregate of the remaining subjects.

Master of Science.—Candidates for the degree of Master of Science shall be required to pass two examinations, the first called, “ M.Sc. (Previous) ” and the second “ M.Sc. (Final) ”.

The M.Sc. (Previous) Examination shall be open to candidates who have obtained the degree of B.Sc., in this University, or in special cases, by permission of the Standing Committee, the degree of B.Sc., or the degree of B.A., with science subjects, in some other Indian University established by an Act of the Legislature.

No candidate shall be admitted to the M.Sc. (Final) Examination, unless he has passed the M.Sc. (Previous) Examination and prosecuted a regular course of study thereafter for not less than one year in the Science College of the University.

The Examination shall be conducted by means of papers and also *viva voce* in subjects which admit to it. Candidates shall also be required to undergo a practical examination.

A candidate may be examined in any one of the following subjects :—

- (1) Mathematics, (2) Physics, (3) Chemistry, (4) Botany,
(5) Zoology, (6) Geology, (7) Geophysics, and (8)
Geography.

Ph.D.—Ph.D. degree is instituted in this University (Refer to Regulations for Ph.D. degree in the Faculty of Arts given above).

D.Sc.—This degree is conferred after the approval of the candidate's thesis, if necessary after a written and oral examination. The degree shall be open to—

- (a) those who have obtained the Ph.D. degree in the Faculty of Science of this University not less than three academical years previously to the date of supplication ;

- (b) those who have obtained the M.Sc. degree of this University not less than seven academical years previously to the date of supplication ; and
- (c) those who are teachers of the University who have obtained the M.Sc., degree of this or any other University established by an Act of Legislature or have passed an examination recognised as equivalent thereto and have put in not less than six years' service in the University prior to the date of supplication ; provided that no candidate under clause (b) and (c) shall be allowed to supplicate for the degree unless he has been exempted, on an application presented for the purpose stating the grounds on which such exemption is claimed by the Research Degree Committee from having to obtain the Ph.D. degree.

COURSES OF STUDY LEADING TO PROFESSIONS

Faculty of Technology

B.Sc. (Industrial Chemistry).—The duration of the course is two years and candidates who have passed the I.Sc. examination with Physics, Chemistry and Mathematics are eligible for admission. The subjects for the examination are Chemistry, Industrial Chemistry and General and Chemical Engineering.

M.Sc. (Industrial Chemistry).—*M.Sc. Tech.*—This is a two years, post-graduate course open to graduates in Industrial Chemistry. The duration is only one year for such candidates as have passed the M.Sc. examination with Chemistry. The Optional subjects for study are Oils and Soaps, Protective Coatings, Carbohydrate Industries, Dye Intermediates and Dye-stuffs, Fine Inorganic and Organic Chemicals.

Bachelor of Science in Chemical Engineering

For the Degree of Bachelor of Science in Chemical Engineering a candidate shall be required to pass four examinations called Previous Examination in Bachelor of Science in Chemical Engineering Part I, and Part II, Final examination in Bachelor of Science in Chemical Engineering Part I and Part II. The minimum qualification for admission to the course is a pass in I.Sc. with Physics, Chemistry and Mathematics. There is a University examination at the end of each year.

The subjects for the Previous Examination for Bachelor of Science in Chemical Engineering Part I shall be the following :

1. Mathematics,
2. Inorganic Chemistry,
3. Physical Chemistry,
4. Applied Mechanics,
5. Engineering Materials and Processes and Workshop Practice,
6. Industrial Calculations,
7. Engineering drawing,
8. Geology, and Mineralogy.

The subjects for the Previous Examination for Bachelor of Science in Chemical Engineering Part II shall be the following :

1. Mathematics,
2. Organic Chemistry,
3. Applied Mechanics,
4. Engineering Thermodynamics,
5. Unit Operations,
6. Electrical Engineering,
7. Elements of machine Design and Drawing,
8. Workshop practice,
9. Physico-chemical measurements.

The subjects for Final Examination Bachelor of Science in Chemical Engineering Part I shall be the following :

1. Chemical Engineering Thermodynamics,
2. Kinetics and catalysis,
3. Unit Operations,
4. Heat Engines and power plant Engineering,
5. Electrical Engineering,
6. Electro-Chemistry and Electro-chemical Industries,
7. Chemical Technology.

The subjects for the Final Examination in Bachelor of Science in Chemical Engineering Part II, shall be the following :

1. Unit Operations,
2. Chemical Technology,
3. Process Costing,
4. Fuel Technology,
5. Chemical Engineering Equipment Design and Fabrication,
6. Process Technology and Design,
7. One of the Electives.

Diploma Examination in Soap Manufacture

Candidates who pass their Intermediate Science and B.Sc. Examination with Chemistry as one of their subjects are eligible for admission to this course which extends to two years in the former case and to one year in the latter case.

Regarding courses of ceramics and glass in the Faculty of Technology, candidates were admitted in I.Sc. Ceramics and I.Sc. Glass and were taught upto M.Sc. Ceramics and M.Sc. Glass standard ; but as these courses are now being combined in one under the decision of the Faculty of Technology and Academic

Council of the University, a Joint Board has been appointed to frame the rules and regulations.

Bachelor of Pharmacy (B.Pharm.).—This is a three years' degree course, open to students who have passed the Intermediate examination, with Physics and Chemistry, of an Indian University or of a Board of Intermediate Education established by an Act of the Legislature. Such students as have passed the B.Sc. Examination with or without Honours or the M.B.B.S. examination shall also have to undergo the full three years' course of training and will not be entitled to any concession by virtue of their superior qualifications. However M.Sc.'s in any branch of chemistry are granted one year's exemption, *i.e.*, they can obtain the degree of Bachelor of Pharmacy in two years by appearing directly at the Second year B.Pharm examination.

The subjects of the first year examination in Pharmacy shall be the following :—

- (1) Pharmaceutical Chemistry,
- (2) Pharmacy,
- (3) Pharmaceutical Biology,
- (4) Human Physiology,
- (5) German.

The subjects for the second year Examination in Pharmacy shall be the following :—

- (1) Pharmaceutical Chemistry,
- (2) Pharmacy,
- (3) Pharmacognosy,
- (4) Pharmaceutical Economics,
- (5) German (House Examination).

The subjects for the Final Examination in Pharmacy shall be the following :

- (1) Pharmaceutical Chemistry,
- (2) Pharmacognosy,
- (3) Pharmaceutical Economics,
- (4) Pharmacy,
- (5) German (House Examination).

Master of Pharmacy

The degree of Master of Pharmacy shall be open to a candidate who has obtained the degree of Bachelor of Pharmacy or the

Diploma in Pharmaceutics of this University or a degree in Pharmacy of any other University recognised by the Standing Committee as equivalent to it.

Courses of study for M.Pharm.

This is a post-graduate course in Pharmacy of approximately one and a half years' duration and the degree is obtainable partly by research and partly by examination. The following are the grouping of the subjects with distribution of papers and marks:—

Thesis comprising research work .. 400 marks

Research work shall be done in any of the branches of Pharmaceutics including Pharmaceutical Chemistry and Pharmacognosy.

Practical..	.. 100 marks.	Theory Paper I	.. 100 marks
Sessional..	.. 100 marks	Paper II ..	.. 100 marks

The courses will include advanced treatment of subjects mentioned below:

Paper I: The candidate are expected to keep themselves abreast of recent developments in the various branches of Pharmaceutics by reading journals and reviews—Antibiotics, Hormones, Vitamins, Sera and Glandular product.

Paper II. Newer Synthetic drugs included in the monographs of extra Pharmacopocia and N. F.

B.Sc. (Engineering) Mechanical and Electrical.—The minimum qualification for admission to the Degree course in Engineering is I.Sc. with Physics Chemistry and Mathematics. The course of study and practical training covers in all five years, of which the fifth year is entirely devoted to practical training.

The candidates have to pass the following four University Examinations:—

I.Sc.(Eng.)	Part I at the end of the 1st year.
I.Sc.(Eng.)	Part II at the end of the 2nd year.
B.Sc.(Eng.)	Part I at the end of the 3rd year.
B.Sc.(Eng.)	Part II at the end of the 4th year.

The Degree of B.Sc., in Engineering is awarded to those students who produce evidence that will satisfy the Syndicate that they have spent not less than 300 days in practical work or research work in workshops or institutions. This certificate should be produced within 5 years of passing the B.Sc. Part II Examination.

The courses of studies and subjects of examination are as follows :—

1. I.Sc.(Eng.) Part I Examination :

(a) Written Papers in :

- (1) Mathematics, Pure and Applied.
- (2) Applied Chemistry,
- (3) Applied Physics,
- (4) Applied Mechanics,
- (5) Heat Engines,
- (6) Surveying,
- (7) Building Materials and Building Construction,
- (8) Machine Drawing,
- (9) Practical Geometry and Graphic Statics.

(b) Sessional Work in :

- (1) Applied Chemistry and Applied Mechanics Laboratory.
- (2) Applied Physics Laboratory,
- (3) Machine Drawing,
- (4) Practical Geometry and Graphic Statics,
- (5) Surveying Field Work and Plotting,
- (6) Workshop Practice.

(c) Periodical Examinations.

Minimum Pass Marks : 40 per cent in each group of written papers, 60 per cent in each subject of Sessional Work and 50 per cent in the aggregate. The classification of the results shall be : Pass 50 per cent, Second class 60 per cent, First Class 70 per cent, of the aggregate of the marks for Sessional Work, written papers and periodical examinations combined.

2. I.Sc.(Eng.) Part II Examination

(a) Written Papers in :

- (1) Mathematics, Pure and Applied,
- (2) Applied Mechanics,
- (3) Heat Engines,

- (4) Electrical Engineering,
- (5) Machine Drawing,
- (6) Practical Geometry and Graphics.

(b) Sessional Work in :
 Mechanical Engineering Laboratory,
 Electrical Engineering Laboratory,
 Machine Drawing,
 Practical Geometry and Graphics,
 Workshop Practice.

(c) Periodical Examinations.

Minimum Pass Marks.—40 per cent in each group of written papers, 60 per cent. in each subject of Sessional Work and 50 per cent in the aggregate. The classification of the results shall be : Pass 50 per cent, Second Class 60 per cent, First Class 70 per cent, of the aggregate of the marks for Sessional Work, written papers and periodical Examinations combined.

3. B.Sc. (Eng.) Part I Examination :—

Civil and Municipal Engineering

- (a) Written Papers in :
- (1) Strength of Materials,
 - (2) Theory of Structures,
 - (3) Buildings and Architecture,
 - (4) Hydraulics and Hydraulic Machinery,
 - (5) Earth Work, Roads and Railways and Aerodromes,
 - (6) Bridges, Tunnels, Docks and Harbours,
 - (7) Geology,
 - (8) Reinforced Concrete and Civil Engineering Design.
 - (9) Soil Mechanics, or Naval Architecture or Aerodynamics.

- (b) Sessional Work in :
- (1) Civil Engineering Laboratory,
 - (2) Geological Laboratory,
 - (3) Structural Design,
 - (4) Civil Engineering, Design and Estimating,
 - (5) Course Work in Soil Mechanics, or Naval Architecture or Aerodynamics.

(c) Periodical Examinations :

Mechanical Engineering

(a) Written Papers in :

- (1) Strength of Materials,
- (2) Theory of Structures,
- (3) Theory of Machines,
- (4) Hydraulics and Hydraulic Machinery,
- (5) Heat Engines,
- (6) Electrical Technology,
- (7) Refrigeration, Cold storage and Air Conditioning, or Electrical Measurements and Measuring Instruments,
- (8) Mechanical Engineering Design,
- (9) Automobile Engineering or Naval Architecture or Aerodynamics.

(b) Sessional Work in :

- (1) Mechanical Engineering Laboratory,
- (2) Electrical Engineering Laboratory,
- (3) Structural Design,
- (4) Mechanical Engineering Design.
- (5) Course Work in Automobile Engineering or Naval Architecture or Aerodynamics.

(c) Periodical Examinations.

Electrical Engineering

(a) Written Papers in :

- (1) Strength of Materials,
- (2) Theory of Structures,
- (3) Theory of Machines,
- (4) Hydraulics and Hydraulic Machinery,
- (5) Heat Engines,
- (6) Electrical Technology,
- (7) Electrical Measurements and Measuring Instruments,
- (8) Electrical Engineering Design,
- (9) Electrical Communication.

(b) Sessional Work in :

- (1) Mechanical Engineering Laboratory,
- (2) Electrical Engineering Laboratory,
- (3) Structural Design,
- (4) Electrical Engineering Design,
- (5) Electrical Installation Design.

(c) Periodical Examinations.

Aeronautical Engineering

(a) Written Papers in :

- (1) Strength of Materials,
- (2) Theory of Structures,
- (3) Theory of Machines,
- (4) Hydraulics and Hydraulic Machinery,
- (5) Internal Combustion Engines and Gas Turbines,
- (6) Electrical Technology,
- (7) Aerodynamics,
- (8) Applied Mathematics,
- (9) Automobile Engineering.

(b) Sessional Work in :

- (1) Aeronautical Engineering Laboratory,
- (2) Electrical Engineering Laboratory,
- (3) Structural Design,
- (4) Internal Combustion Engine Design,
- (5) Course Work in Automobile Engineering.

(c) Periodical Examinations.

Naval Architecture and Marine Engineering

(a) Written Papers in :

- (1) Strength of Materials,
- (2) Theory of Structures,
- (3) Theory of Machines,
- (4) Hydraulics and Hydraulic Machinery,
- (5) Heat Engines,
- (6) Electrical Technology,
- (7) Refrigeration, Cold Storage and Air Conditioning,
- (8) Marine Engineering Design,
- (9) Naval Architecture.

(b) Sessional Work in :

- (1) Naval Architecture and Marine Engineering Laboratory,
- (2) Electrical Engineering Laboratory,
- (3) Structural Design,
- (4) Marine Engineering Design,
- (5) Course Work in Naval Architecture.

(c) Periodical Examinations.

Minimum Pass Marks—40 per cent in each group of written papers, 60 per cent in each subject of Sessional Work, 50 per cent in the aggregate. The classification of the results shall be : Second class 50 per cent and First Class 70 per cent. of the aggregate of the marks for Sessional Work and Written papers combined.

4. B.Sc. (Engineering) Part II Examination :

Civil and Municipal Engineering

(a) Written Papers in :

- (1) Strength and Elasticity of Materials,
- (2) Theory of Structures or Aircraft Structures or Naval Architecture.
- (3) Hydraulics and Water Power Engineering or Aerodynamics,
- (4) Surveying,
- (5) Sanitary Engineering including Drainage and Water supply,
- (6) Town Planning and Architecture or Advanced Mathematics,
- (7) Irrigation,
- (8) Accounts, Estimates and Specifications.

(b) Sessional Work in :

- (1) Civil and Sanitary Engineering Laboratory,
- (2) Structural Design or Aircraft Structures Design or Naval Architecture Design,
- (3) Civil and Sanitary Engineering Design ,
- (4) Surveying Field Work and Project,
- (5) Approved Extramural Practice.

Mechanical Engineering

(a) Written Papers in :

- (1) Strength and Elasticity of Materials,
- (2) Theory of Structures or Aircraft Structures or Naval Architecture,
- (3) Electrical Technology or Aerodynamics,
- (4) Theory and Design of Machines,
- (5) Advanced Applied Thermo-dynamics and Heat Engines.
- (6) Hydraulics and Water Power Engineering or Automobile Engineering, or Aero-Engine and Systems of Propulsion or Surveying.

- (7) Workshop Technology and Engineering Production,
- (8) Industrial Organization and Works Management or Advanced Mathematics.

(b) Sessional Work in :

- (1) Mechanical Engineering Laboratory,
- (2) Course work in Hydraulics and Water Power Engineering or Automobile Engineering or Aero-Engines or Surveying Field Work and Project.
- (3) Mechanical Engineering Design.
- (4) Structural Design or Aircraft Structures Design or Naval Architecture Design,
- (5) Approved Extramural Practice.

Electrical Engineering

(a) Written Papers in :

- (1) Strength and Elasticity of Materials,
- (2) Electrical Communications or Utilisation of Electrical Power with Traction or Surveying,
- (3) Hydraulics and Water Power Engineering or High Frequency Currents and Measurements,
- (4) Electrical Technology,
- (5) Generation, Transmission and Distribution of Electric Power.
- (6) Principle and Design of Electrical Machines.
- (7) Workshop Technology and Engineering Production,
- (8) Industrial Organization and Works Management or Advanced Mathematics.

(b) Sessional Work in :

- (1) Electrical Engineering Laboratory,
- (2) Electrical Machine Design,
- (3) Electrical Installation Design or Hydro-Electric Design.
- (4) Course Work in Electrical Communication or Utilisation of Electrical Power with Traction or Surveying Field Work and Project.
- (5) Approved Extramural Practice.

Aeronautical Engineering

(a) Written Papers in :

- (1) Strength and Elasticity of Materials,
- (2) Aircraft Structures,
- (3) Aerodynamics,
- (4) Radio Communication,

- (5) Aero-Engines and Systems of Propulsion,
- (6) Aircraft Equipment,
- (7) Workshop Technology and Engineering Production,
- (8) Industrial Organization and Works Management or Advanced Mathematics.

(b) Sessional Work in :

- (1) Aeronautical Engineering Laboratory,
- (2) Radio Communication Laboratory,
- (3) Aircraft Structures Design,
- (4) Aero-Engine Design,
- (5) Approved Extramural Practice.

Naval Architecture and Marine Engineering

(a) Written Papers in :

- (1) Strength and Elasticity of Materials,
- (2) Naval Architecture Paper I,
- (3) Naval Architecture Paper II,
- (4) Radio Communication,
- (5) Naval Architecture Design,
- (6) Advanced Applied Thermo-dynamics and Heat Engines.
- (7) Workshop Technology and Engineering Production,
- (8) Industrial Organization and Works Management or Advanced Mathematics.

(b) Sessional Work in :

- (1) Marine Engineering and Naval Architecture Laboratory.
- (2) Radio Communication Laboratory.
- (3) Marine Engineering Design,
- (4) Naval Architecture Design,
- (5) Approved Extramural Practice.

Minimum Pass Marks—40 per cent in each group of written paper 60 per cent in each subject of Sessional Work. 50 per cent in the aggregate. The classification of the results shall be : Pass 50 per cent, Second Class 60 per cent. First Class 70 per cent of the aggregate of the marks for Sessional Work, written papers and Periodical Examinations combined.

B.Sc. (Mining), B.Sc. (Metallurgy) and B.Sc. (Fuel Technology)

The University offers a four-year course leading to the Degree of B.Sc. in Mining, a four-year course leading to the Degree of

B.Sc. in Metallurgy and a four year course leading to the Degree of B.Sc. in Fuel Technology to students who have passed the Intermediate Examination, with Mathematics, Physics, and Chemistry, of an Indian University or Board of Intermediate Education established by an Act of Legislature.

An outline of the courses is given below :

First Year—(Common to Mining, Metallurgy and Fuel Technology)

1. Mathematics,
2. Applied Mech. Part I,
3. Heat Engine, Part I,
4. Practical Solid Geometry,
5. Engineering Drawing, Part I,
6. Elements of Metallurgy,
7. Fuels and Refractory Material.

Second Year Examination in Mining

1. Geology and Mineralogy,
2. Elements of Mining,
3. Applied Mech. Part II,
4. Heat Engines, Part II,
5. Engineering Drawing, Part II,
6. Surveying Part I,
7. Applied Electricity, Part I.

Second Year Examination in Metallurgy and Fuel Technology

1. Geology and Mineralogy,
2. Elements of Mining,
3. Applied Mechanics, Part II,
4. Heat Engines, Part II,
5. Physical Chemistry, Part I,
6. Fuels, Part I,
7. Applied Electricity, Part I.

Final Examination in Mining :

1. Mining,
2. Surveying, Part II,
3. Mining Geology,
4. Assaying,
5. Economics of Mining,
6. Applied Electricity, Part II,
7. Building Construction,
8. Mining Design or Thesis.

Final Examination in Metallurgy :

1. Metallurgy,
2. Metallurgical Analysis,
3. Refractories and Furnaces,
4. Metallography and Pyrometry
5. Mechanical Testing and Heat Treatment of Metals and Alloys,
6. Applied Electricity, Part III,
7. Electro-Metallurgy and Ore Dressing,
8. Thesis.

Final Examination in Fuel Technology :

1. Fuels, Part II,
2. Organic Chemistry,
3. Physical Chemistry, Part II and Principles of Chemical Engineering,
4. Coal-tar and its By-products,
5. Internal Combustion Engines and Automotive Fuels,
6. Refractories and Furnaces,
7. Applied Electricity, Part II,
8. Thesis.

B. Sc. (Agriculture)

The subjects of the Part I Examination in Agriculture shall be the following :

Agriculture (Tillage, Agric. Operations and Climatology).
 Agriculture (Irrigation, Drainage and Manuring),
 Animal Husbandry,
 Agricultural Economics,
 Agricultural Engineering (Mathematics and Surveying),
 Agricultural Chemistry,
 Agricultural Botany,
 Agricultural Zoology.

The subjects of the Part II Examination in Agriculture shall be the following :

Agriculture (Crops),
 Animal Husbandry,
 Agricultural Economics,
 Agricultural Engineering,
 Agricultural Chemistry,
 Plant Pathology (Mycology),
 Entomology.

The subjects of the Part III Examination in Agriculture shall be the following:

1. Agriculture Farm (Management),
2. Agriculture (Crops and Experimental Technique),
3. Horticulture,
4. Genetics and Plant Breeding,
5. Agricultural Chemistry,
6. Plant Physiology,
7. Plant Pathology.

M.Sc. in Agriculture

A candidate for the M.Sc. degree in Agriculture may be examined in any one of the following subjects:

- (i) Plant Physiology,
- (ii) Mycology and Plant Pathology,
- (iii) Agronomy,
- (iv) Agricultural Economics.

The subjects of Examination in Plant Physiology shall be the following:

1. Fundamental Plant Physiology,
2. Applied Plant Physiology.

The subjects of examination in Mycology shall be the followings:

1. Mycology,
2. Plant Pathology,
3. Micro-biology.

Doctor of Philosophy in Technology.—Students can work in the Faculty of Technology for the prescribed periods under the guidance of some professor in this University, after passing, M.Sc., Tech. M.Mc., Agri., M.Pharm., B.Sc., Min., B.Sc. Met., B.Sc., Engineering Examinations of this University Residence during this period in the University is compulsory.

Doctor of Science in Technology

The degree is open

(1) to those who have obtained the Ph.D., degree in the Faculty of Technology not less than three academic years previous to the date of the submission of the thesis;

(2) to those who have obtained the M.Sc. Tech., M.Sc. Agri., and M.Pharm. Degrees of this University not less than 7 academic years previous to the date of supplication;

(3) to teachers of this University who have obtained the Degrees mentioned in (2) above and have put in not less than six years' service in this University prior to the date of application.

Faculty of Law

LL.B.—The course of study extends to two years and is open to graduates of this or any other Indian University recognised by the Syndicate. There are two examinations, one at the end of the first year's course of study called the Previous Examination and the other the Final Examination held at the end of the second year of study. For the Previous examination a candidate is expected to have studied Constitutional Law of England and India, Hindu Law, Roman Law, the Law of Contracts and Sale of Goods, Law of Torts, Law of Companies Partnership and Negotiable Instruments, the Law of Crimes and Criminal Procedure. The subjects for the Final Examination are:—Principle of Equity with special reference to the Law of Trusts and Specific Relief, the Law relating to Transfer of Property and the Law of Civil Procedure, Pleadings and Limitations, the Law of Easements, Jurisprudence, Muhammadan Law, the Law relating to Land Tenures, Rent and Revenue and the Law of Evidence.

LL.B. (Honours).—In addition to the above papers of the *LL.B.* Final Examination there will be extra two papers carrying 100 marks each for an Honours candidate. He must secure 50 Honours and not less than 60 per cent in the aggregate of all the papers including Honours papers.

The two papers are to be taken out of the following:

1. Historical Jurisprudence,
2. Hindu Jurisprudence,
3. Private International Law.

LL.M.—The Master's Examination in Law is a two years' course. The subjects for the examination are as follows:

- (1) Hindu Law (Ancient and Modern),
 - (2) Legal History,
 - (3) Jurisprudence,
- and any three of the following subjects:
- (a) Constitutional Law and Custom,
 - (b) Roman Law,
 - (c) Mohammedan Law,

- (d) Principles of Equity including Trusts and Specific Relief,
- (e) Transfer of Property,
- (f) Contracts,
- (g) Mercantile Law,
- (h) Private International Law,
- (i) Public International Law.

Note.—In regard to an optional subject, while a candidate is required to have a competent knowledge of the subject, he will be required to possess a detailed knowledge of one of its branches to be selected by him. The examination in Hindu Law and Mohammedan Law is to comprise questions having special reference to the original authorities or translations thereof.

LL.D.—This is an examination chiefly by a thesis to be supplemented if necessary by an examination, oral, written or both. A candidate for this examination must have passed his LL.M. Examination at least one year before appearing for it.

Faculty of Medicine and Surgery (Ayurveda)

Ayurvedacharya, Bachelor of Medicine and Surgery :

No candidate shall be admitted to the degree of the Ayurvedacharya, Bachelor of Medicine and Surgery, unless he has passed the Intermediate Science Examination with Biology, Physics and Chemistry, Madhyama Sampurna examinations with Admission or Matriculation examination in English, the Intermediate examination with Sanskrit, (Such a student shall have to pass an examination in Chemistry, Physics, Zoology and Botany), and Praveshika Examination of the Faculty of Medicine and Surgery, Ayurveda, of Banaras Hindu University. The duration of the course is five years during which the following examinations are held.

The courses of Ayurvedacharya, Bachelor of Medicine and Surgery :

1. First Professional Examination

The First Professional Examination shall be held at the end of 2nd year and will include the following subjects:—(i) Anatomy (ii) Physiology, (iii) Shareer (Dosh Dhalu Maladi Vijnana), (iv) Rasa Shastra with Bhaishajya Kalpana.

2. Second Professional Examination

Second Professional Examination shall be held at the end of the third year and will include the following :

- (1) Materia Medica, (2) Dravya Guna.

3. Third Professional Examination, Part A will be held at the end of the fourth year and will include the following subjects :

- (1) Medical Jurisprudence Toxicology and Agad Tantra,
- (2) Hygiene and Swasthavirtta,
- (3) Charak Poorvardha,
- (4) Pathology and Bacteriology,
- (5) Midwifery and Gynaecology and Prasuti Tantra with Streeroga.

4. Third Professional Examination Part B will be held at the end of the fifth year and shall include the following :

- (1) Surgery with Shalya Tantra,
- (2) Medicine including children's diseases and Kaumar-Bhartya,
- (3) E. N. T. and Ophthalmology with Shalakya Tantra,
- (4) Charak Uttarrardha,
- (5) Roga Vijnana and Kaya Chikitsa including Oushadhi Yoga Vijnan.

Ayurveda Praveshika Examination

There shall be an Ayurveda Praveshika examination for admission to the prescribed course of studies for the degree of Ayurvedacharya, Bachelor of Medicine and Surgery in the Faculty of Medicine and Surgery (Ayurveda) and it shall be held at Banaras twice a year in the second week of March and in the first week of July.

Admission.—No candidate shall be admitted to these courses unless he has passed the Admission or Praveshika examinations of Banaras Hindu University or any other equivalent examination.

The courses of studies for Ayurveda Praveshika Examination will extend over a period of two years and the examination will be held in the following subjects :

I. Science ; II. Sanskrit, III. English.

For the practical training of students, a hospital with accommodation for one hundred patients with separate medical and surgical wards has been provided. A dissection hall has been provided for post-mortem clinicals. Candidates who have passed the Admission or equivalent examination with Sanskrit or the Praveshika Examination with English are eligible for admission to this course.

Recognition of Degrees and Diplomas of other Universities

Ordinarily the Entrance Examinations, Intermediate and Degree Examinations in Arts and Science of any Indian University or Board established by an Act of Legislature for the time being in force are recognised on a reciprocal basis.

Scale of Fees

Tuition Fees

Classes.	Rates (1950-51) Per Inst.			No. of months for which charged.
	Rs.	a.	p.	
I. A.	10	0	0	Charged for 10 months and collected in 8 instalments.
B.A.	13	12	0	Do.
M.A.	17	8	0	Do.
I.Sc.	10	0	0	Do.
B.Sc.	15	0	0	Do.
M.Sc. (Pre.)	20	10	0	Do.
M.Sc. (Final)	18	2	0	Do.
I.Com.	10	0	0	Do.
B.Com.	13	12	0	Do.
M.Com.	17	8	0	Do.
I.Sc. (Engineering)	28	12	0	Do.
B.Sc. (")	31	4	0	Do.
LL.B. (Pre) & (Final)	15	0	0	Do.
A. M. S. (Praveshika)	12	8	0	Do.
I Prof. (Ayurveda)	12	8	0	Do.
II Prof. "	12	8	0	Do.
III. Prof. "	12	8	0	Do.
IV Prof. "	12	8	0	Do.
V Prof. "	12	8	0	Do.
VI Prof. "	12	8	0	Do.
B.Sc. (Agriculture)	22	8	0	Do.

Classes.	Rate (1950-51) per inst.			No. of months for which charged.
	Rs.	a.	p.	
M.Sc.	25	0	0	Charged for 10 months and collected in 8 instalments
I.Sc. (Min. and Met.) ..	27	8	0	
B.Sc. (..) ..	30	0	0	
B.Sc. (Tech.) Ind. Chem. Glass, Ceramics and Pharm.	22	8	0	
B.Sc. (Chem. Engineering) Part I and II	27	8	0	Do.
B.Sc. (Chem. Eng.) Part III and IV	30	0	0	Do.
M.Sc. (Pre.) Ind. Chem. ..	27	8	0	Do.
M.Sc. (Final) Ind. Chem. ..	25	0	0	Do.
Sangeet Praveshika	9	0	0	Do.
Sangeet Madhyama	12	0	0	Do.
Sangeet Alankar	15	0	0	Do.
Sangeetacharya	18	0	0	Do.
Fine Arts	9	0	0	Do.
B.Ed.	18	12	0	Do.
M.Ed.	25	0	0	Do.
Diploma in—				
German	} 2	8	0	Do.
French				
Chinese				
Clinical Psychology ..	10	0	0	Do.
Certificate in—				
Hindi	} 1	4	0	Do.
Bengali				
Telugu				
Gujarathi				
Statistical Method	3	12	0	Do.
Diploma in Soap	18	12	0	Do.
Research ..	Rs. 42 + 42 + 41 = 125			
LL.M.	50	0	0	Do.
Diploma in Library Science	30	0	0	Do.

Examination Fees

Name of Examination	Fee
	1950-51
	Fees in-
	cluding
	marks.
	Rs.
Admission	25
I.A., I.Com., & I.Sc.	30
B.A., B.Com., & B.Sc.	42
M.A., & M.Sc. (Previous)	32
" " (Final)	32
for 8 papers	56
M.Com. (Previous)	25
M.Com. (Final)	36
I.Sc. (Eng.) Part I & II	32
B.Sc. (Eng.) Part I & II	42
I Yr. & II Yr. (Min. & Met.)	32
B.Sc., (Min. & Met.)	56
B.Sc. (Fuel Tech.)	56
LL.B. (Previous)	25
LL.B. (Final)	36
LL.M.	156
Ayurveda (Praveshika)	15
I Prof. (Ayurveda)	15
II Prof. "	20
III Prof. (Ayurveda) Part A	25
III Prof. " Part B	25
B.Sc. (Ag.) Part I, II & III	42
M.Sc. (Ag.)	56
I.Sc. (Glass and Ceramics)	32
B.Sc. " " Part I & II	42
B.Sc. (Chem. Eng.) Part I & II	32
B.Sc., (Chem. Eng.) Part III & IV	42
M.Sc. (Glass & Ceramics)	56
B-Pharm. Part I, II & III	42
M.Pharm	56
B.Sc. (Ind. Chem.)	42
M.Sc. (Ind. Chem.) Pre. & Final	32
B.Ed.	42
M.Ed.	56
Sangeet Praveshika	20
" Madhyama	30
" Alankar	40
" Acharya	50

Name of Examination	Fee					
	1950-51					
	Fees in-					
	cluding marks.					
	Rs.					
	Rs.					
Praveshika (Regular)	Rs.	3	Excluding Marks fee.			
Praveshika (Private)	4	Do.				
Madhyama Part I, II & III	3	Do.				
Shastri Part I, II & III	4	Do.				
Sampurna Shastri	6	Do.				
Acharya Part I, II & III	5	Do.				
Sampurna Acharya	13	Do.				
Paurohitya Examination Part I, II & III	3	Do.				
Previous Examination in Sanskrit	3	Do.				
Diploma in—						
Library Science .. ..	..	..	..	..	..	25
Soap Manufacture .. ..	..	..	..	..	..	25
German .. ..	..	..	..	..	..	12
French .. ..	..	..	..	..	..	12
Indian Philosophy & Culture .. ..	..	..	..	..	..	56
Clinical Psychology .. ..	..	..	..	..	..	32
Junior Painting .. ..	..	..	..	..	..	25
Senior Painting .. ..	..	..	..	..	..	25
Junior Sculpture .. ..	..	..	..	..	..	25
Senior Sculpture .. ..	..	..	..	..	..	25
Certificates in—						
Hindi .. ..	..	..	..	..	..	12
Bengali .. ..	..	..	..	..	..	12
Telugu .. ..	..	..	..	..	..	12
Gujarathi .. ..	..	..	..	..	..	12
Statistical Methods .. ..	..	..	..	..	..	12
Ph.D. .. ..	..	..	..	..	..	154
D.Sc. .. ..	..	..	..	..	..	154
D.Litt. .. ..	..	..	..	..	..	154

BIHAR UNIVERSITY

Introduction

The University of Bihar was started from the 2nd of January, 1952 under the Bihar University Act, 1951. The University of Bihar is in fact, not a new University altogether but the old Patna University split into two under two names, viz. (i) The Patna University which has been designed as the Teaching-cum-Residential University and the University of Bihar as the Affiliating-cum-Teaching University by the State Legislatures.

The office of the University of Bihar is located at Patna.

All the 36 colleges situated in different parts of the State have come under the jurisdiction of this University. A list of these colleges is given below.

(A) Constituent Colleges

1. Langat Singh College, Muzaffarpur.
2. Ranchi College, Ranchi.
3. T. N. J. College, Bhagalpur (only the post-graduate classes in the college).

(B) Affiliated Colleges

(i) First Grade—

1. Darbhanga Medical College, Darbhanga.
2. Government Agricultural College, Sabour, (Bhagalpur)
3. Rajendra College, Chapra.
4. C. M. College, Darbhanga.
5. T. N. J. College, Bhagalpur.
6. Marwari College, Bhagalpur.
7. St. Columba's College, Hazaribagh.
8. Gaya College, Gaya.
9. H. D. Jain College, Arrah.
10. Nalanda College, Biharsharif, (Patna).
11. R. D. & D. J. College, Monghyr.
12. G. D. College, Begusarai, (Monghyr).
13. R. K. College, Madhubani (Darbhanga).
14. St. Xavier's College Ranchi.
15. Munshi Singh College, Motihari (Champaran).
16. Darshan Das Mahila College, Muzaffarpur,

17. S. K. J. Law College, Muzaffarpur.
18. Bihar Veterinary College, P. O. Veterinary College, Patna.
19. Koshi College Khagaria (Monghyr).
20. Ram Dayalu Singh College, Muzaffarpur.
21. S. Sinha College, Aurangabad, (Gaya).
22. D. A. V. College, Siwan (Saran).
23. Bihar Institute of Tecnology, P. O. Sindri Institute, (Manbhum).
24. Sundervati Mahila Mahavidyalaya, Bhagalpur.
25. Purnea College, Purnea.
26. Ranchi Women's College, Ranchi.
27. Samastipur College, Samastipur (Darbhanga).

(ii) *Second Grade—*

28. S. R. K. Goenka College, Satamarhi (Muzaffarpur).
29. J. K. College, Purulia (Manbhum).
30. S. P. Jain College, Sasaram (Shabadad).
31. Deoghar College, Deoghar (S. P.)
32. A. N. S. College, Barh (Patna).
33. Raja Shiba Prasad College, Jharia (Manbhum).
34. Rajnarain College, Hajipore (Muzaffarpur).
35. Sahebganj College, Sahebganj (S. P.)
36. Saharsa College, Saharsa.

The two Government Colleges, *viz.*, the L.S. College, Muzaffarpur and the Ranchi College, Ranchi, which teach upto the M.A. class in various subjects and which were hitherto run and managed by the State Government have now been transferred to this University as its constituent colleges.

Constitution

The first Chancellor and the first Vice-Chancellor of the University and the first members of the Senate, the Syndicate and the Academic Council and all persons who may hereafter become such officers or members, so long as they continue to hold such office or membership, are constituted a body corporate by the name of the University of Bihar.

Administration

- (a) *Vice-Chancellor.*—Lt.-Col. Shri Syamnandan Sahaya, M.P.
- (b) *Treasurer.*—Shri Rameshwar Parsad Singh, M.L.C.
- (c) *Registrar.*—Shri B. M. K. Sinha, M.A., B.L. (Pat.) B.A. (Lond.)

- (d) *Controller of Examinations*.—Shri Amarendra Narayan M.Sc. (B.H.U.)
 (e) *Dy. Registrar*.—Shri Pinakpani Roy Choudhary, B.Sc. (Pat.)
 (f) *Inspectors of Colleges*—
 (i) Dr. B. B. Mazumdar, M.A., Ph.D.,
 (ii) Shri Phuldeo Sahay Verma, M.Sc.

Faculties

For the present the following Faculties have been constituted :

<i>Faculties</i>		<i>Deans</i>	
Arts ..	..	Principal F. Rahman	
Science ..	..	Principal K. P. Sinha	
Commerce ..	..	Principal G. D. Chakravorty	
Law ..	..	Principal Kishore Narayan	
Medicine ..	..	Principal B. N. Bannerjee	
Veterinary ..	..	Principal H. R. Kapoor	
Agriculture ..	..	Principal Dr. R. H. Richharia	

<i>The University Examination</i>	<i>Duration of the courses</i>	<i>Entrance qualification thereof</i>
(i) Intermediate in Arts, Science and Commerce.	2 years	After passing the Secondary School Certificate Examinations or any other examination as recognised by the Academic Council as equivalent thereto.
(ii) Examination for the Degree of Bachelor or Arts, Science and Commerce.	2 years	After passing the corresponding lower examination.
(iii) B.Sc. (Agriculture.)	3 years. One year for each B.Sc. (Agri.) Junior (1st year.) previous (2nd year) Final (3rd year.)	After passing the I. Sc. with Physics, Chemistry and one of the following subjects:—Botany, Zoology Biology or any other examination recognised by the Academic Council as equivalent thereto.

<i>The University Examination</i>	<i>Duration of the courses</i>	<i>Entrance qualification thereof</i>
(iv) M.Sc. (Agri.)..	2 years	.. To be admitted a candidate must have taken the B.Sc. (Agri.) of this University, or passed some other examination recognised by the Academic Council as equivalent thereto not less than 2 academical years previously or a person employed in any research section of the Bihar Agricultural Department or any teacher of an Agricultural College.
B.Sc. (Eng.)	.. 4 years	.. Shall be required to have passed I.Sc. of the Bihar University with Mathematics, Physics and Chemistry or any other examination recognised by the Academic Council.
M.A.	.. 2 years	.. To be admitted to the M. A. examination a candidate must have (a) taken the B.A., B.Sc., or B.Com. degree or passed some other examination recognised by the Academic Council as equivalent thereto not less than two academic years previously. A B.Com. is admitted to the M.A. examination in Economics or Labour and Social Welfare and B. Sc. unless he has passed the

<i>The University Examination</i>	<i>Duration of the courses</i>	<i>Entrance qualification thereof</i>
		B.A. examination in English and Vernacular Composition and in the subjects in which he wants to appear at the M.A. examination.
M. Sc. 2 years ..		To be admitted to this examination a candidate must have passed the (a) B. Sc. degree or some other examination recognised by the Academic Council as equivalent thereto not less than two academic years previously.
M.Com. 2 years ..		Must have taken the B.Com. degree or passed some other examination recognised by the Academic Council as equivalent thereto not less than two academic years previously.
B.L. 2 years ..		To be admitted a candidate must have passed the examination for the Bachelor's degree in any faculty or any other examination recognised by the Academic Council as equivalent thereto.
M.L. 		Any registered candidate, who has passed the B.L. examination or some other examination recognised by the Academic Council as equivalent thereto may be examined for the degree of Master of Law two years after his graduation in law.

<i>The University Examination</i>	<i>duration of the courses</i>	<i>Entrance qualification thereof</i>
M.B.B.S. examination.	5 years ..	(a) I.Sc. of the Bihar University with Physics, Chemistry and Biology or some other examination recognised by the Academic Council as equivalent thereto.
(a) Intermediate examination.	2 years ..	(b) B.Sc. of a recognised University with Botany and Zoology, in addition to having passed in Physics and Chemistry either at the Intermediate or degree examination.
(b) (i) The final M.B.B.S. examination, Part I.	2 years ..	After passing the Intermediate M.B.B.S. examination.
(ii) The final M.B.B.S. examination, Part II.	..	If a candidate since passing the Intermediate M. B. B. S. examination has completed 3 years of a regular course of study, theoretical and practical and hospital practice in the subjects of the examination in a college admitted to this University up to the standard of the Final M.B.B.S. examination.
B.Sc. in Medical Sciences.	2 years ..	After having passed the I.Sc. examination with Chemistry, Physics, and Biology or any other examination recognised by the Academic Council as equivalent thereto and completed a regular course of study

<i>The University Examination</i>	<i>Duration of the courses</i>	<i>Entrance qualification thereof</i>
		(theoretical and practical) for 2 years,
M.Sc. (Medical Sciences.)	2 years ...	After having passed B.Sc. in Medical Science or degree of this University or any other degree recognised by the Academic Council as equivalent thereto not less than 2 years previously.
B. V. Science and Animal Husbandry.	4 years each of 2 sessions	Secondary School, Certificate Examination with Mathematics as one of the subjects or some other examination recognised by the Academic Council as equivalent thereto.
Examination for in International Relations.	1 year ...	A registered B.A., B.Sc. or B.Com. may be admitted.
The examination for Diploma in Public Relation and Local Government.	1 year ...	Do,

For the present the University is teaching the following subjects in the post-graduate classes :—English, Hindi, Economics, Mathematics, History.

Number of Students

The latest figures for total number of students in the University and the affiliated colleges 20,723.

Budget

Financial statement showing government grants, etc.

	Rs.
Statutory Grant	Annually.
Grant for examination fees to	18,00,000
Harijan and Scheduled caste	
students	2,000
Grant for buildings of L. S. College,	
Muzaffarpur	2,60,000
Grant for furniture and equipment	
in Science Laboratories of L. S.	
College, Muzaffarpur	19,300
Grant for furniture at Ranchi College ...	9,300
Grant for Anthropology Section,	
Ranchi College... ..	20,160
Donation from Mahant Darshan Das	
of Maniari for starting a college in	
a rural area	50,000
Fees received for registration of col-	
lege teachers and students and for	
issuing Migration and other certi-	
ficates	30,000

Examination fees have not been yet received.

BOMBAY UNIVERSITY

Introductory : Character of the University

This University was established in 1857 ; but, until the passing of the Indian Universities Act of 1904, the Bombay University, in common with the others, was limited to the function of examining candidates and arranging for the courses of study which led up to their degrees. Under the Act of 1904, it acquired the right of organizing teaching, arranging for University extension lectures, and of publishing such works as were necessary for the direct educational work it was to carry on. By the Act of 1928, the constitution of the University was considerably altered. By reducing the proportion of the nominated to the elected members in the Senate, and by throwing open the door of the Senate to the representatives of a larger variety of interests, the new Act has ensured the independence of the University for all practical purposes, and made the University a more popular and representative institution than it ever was in the past. Under the new Act, the executive functions of the University are carried on by the Syndicate, and most of the academic work is looked after by the Academic Council.

Chiefly owing to lack of funds, the University was not able to undertake any new activities until 1912, when a liberal offer from the Government of India made it possible immediately to launch out in new directions. The Government of India offered to the University a non-recurring grant of five lakhs of rupees and a recurring grant of Rs. 45,000 for the purpose of developing its activities as a teaching body. As a result, in 1913-14, Sir Alfred Hopkinson of Manchester University was invited to India to advise as to possible and suitable lines of development and, in 1914, post-graduate lectures on the basis of the needs of the M.A. students were held for the first time. Since 1918-19, the scheme was somewhat modified and placed on Inter-Collegiate lines. The various colleges in Bombay arranged a considerable amount of post-graduate teaching, which was thrown open to qualified students of other colleges who were interested in the subjects or were working for the M.A. degree of the University. The University supplemented this teaching by arranging for a limited number of courses on its own account to deal with matters in which it seemed essential to provide training but which were not adequately covered by the courses provided by the colleges.

In 1922, a Committee was appointed to revise the scheme of post-graduate studies in the light of the experience gained with regard to its working since its inauguration. The Committee submitted its report in March, 1923, recommending that all post-graduate work should be undertaken under a centralized scheme by the University in co-operation with its Colleges, and that the work, so far as Bombay was concerned, should be done as far as possible in the University buildings. As a result of the Committee's deliberations, a revised set of regulations relating to post-graduate studies was adopted by the Senate in August 1924. The revised scheme was tried for a couple of years, but proved unsatisfactory. Therefore, in December, 1926, the Syndicate appointed a committee to consider the question in all its aspects and to draw up a comprehensive scheme of post-graduate teaching. The scheme prepared by this committee was laid before the Senate in July, 1927. As there was a divergence of opinion among the members of the Senate, in essentials, the Senate appointed a committee of its own to examine the scheme, and while the report of the committee was under the consideration of the Senate, the new University Act was passed and the whole question was, therefore, left to be solved by the new Syndicate and by the Board of Post-Graduate Studies newly created by the Act. Now, the Board of Post-Graduate Studies practically controls the whole of post-graduate instruction and research in the University, including what is done in this direction in the colleges affiliated to the University and other post-graduate institutions.

One of the main ideas underlying the University Act of 1928 is that the University should directly conduct post-graduate teaching and research in all branches of learning and, with this view, the Act provides for the recognition of teachers in colleges as University Teachers for post-graduate instruction and research. A number of teachers from affiliated colleges and recognised post-graduate institutions are accordingly recognised for giving instruction to students preparing for examinations by papers, and for guiding research students. The need for undertaking direct post-graduate teaching by the University in post-graduate departments directly maintained by it has always been felt and though, owing to lack of funds it has not been possible to do this in all branches of learning, the University today maintains the following post-graduate institutions of its own :—

1. The University School of Economics and Sociology (the newly instituted Department of Civics and Politics forms part of the School)

2. The University Department of Chemical Technology.
3. The University Department of Statistics.

As far as under graduate education is concerned, the University is an affiliating University.

Before the establishment of the University of Sind and of regional Universities in the Bombay State, the jurisdiction of the University extended over the whole of the former Provinces of Bombay and Sind. The University's jurisdiction is now confined to the limits of Greater Bombay.

The University was reconstituted by the Bombay University Act, 1953, consequent upon the establishment of other Universities as a measure in the decentralization and reorganization of University Education in the Bombay State. The new Act came into operation from the 1st June, 1953, and steps are being taken to constitute the various Authorities and Bodies of the University under the new Act. In the mean time, the authorities and Bodies elected under the Act of 1928 continue to function as Authorities and Bodies under the provisions of the new Act.

The special feature of the Bombay University, Act, 1953, are as follows :—

- (1) Reconstitution of the University as a teaching and federal University. All affiliated colleges become constituent colleges.
- (2) Reduction in the number of elections.
- (3) The strengthening of the academic element in the Senate, the Academic Council and Boards of Studies.
- (4) The creation of the Boards of University Teaching composed predominantly of the academic element and empowered to co-ordinate, control and regulate post-Intermediate and post-graduate, instruction, teaching and training in affiliated colleges and recognized institution and to make recommendations to the Syndicate for conducting such instruction teaching and training in University colleges and institutions.
- (5) Extension of the powers of the University and its

authorities by including activities like extra-mural teaching, University extension courses, training of students for competitive examinations for service under the Union and the State Governments, the establishment of an employment Bureau, student's Union and Board of students' welfare and provision for recognition of institutions of research and specialized studies by the Syndicate.

The new Act makes a great advance over the Act of 1928 in the matter of the University's control over post-Intermediate instruction in the colleges. Under the Act of 1928, such control was distant and indirect. Under the new Act, the colleges become integral parts of a Federal University system and the University would be in a position to improve post-Intermediate instruction by husbanding the resources of the colleges, avoiding duplication and encouraging specialization. The University itself can, under the new Act, undertake post-Intermediate instruction in its own institutions, if necessary.

Constitution of the University

The University is governed in accordance with the provisions of the Bombay University Act, 1953. The Senate is the supreme governing body of the University. The executive government is vested in the Syndicate. The other authorities of the University are the Faculties of Arts, Science, Technology, Law, Medicine and Commerce, the Academic Council, the Boards of University Teaching, Boards of Studies in the various Faculties and such other bodies as the Senate may declare by Statutes to be authorities of the University.

Officers and the Staff of the University

The Chancellor

Shri Girja Shankar Bajpai, Governor of Bombay.

The Vice-Chancellor

Sir Navroji, J. Wadia, Kt., B.A.(B m. & Cantab.), Bar-at-Law.

Deans

<i>In Arts</i> ...	...	K. R. Gunjekar, Esq., M.A., B.Sc.
<i>In Science</i> ...	...	Principal N.N. Murti, B.A., Ph.D., D.I.C.
<i>In Technology</i> ...	...	G. A. Kamtekar, Esq., B.A., B.Sc. (Bo.m.), B.Sc. (Edin.), M.I.E.
<i>In Law</i> ...	...	Diwan Bahadur K. M. Jhaveri, M.A., LL.B.
<i>In Medicine</i> ...	...	Dr. Bhaskar Patel, M.D., M.R.C.P.E., T.D.D.
<i>In Commerce</i> ...	...	Sir Vithal N. Chandavarkar, Kt., M.A. (Cant.), Bar-at-Law.

The Syndicate

- Sir Navroji J. Wadia, Kt., B.A. (Bom, & Cantab.), Bar-at-Law, Beau Site, Worli Parade, Bombay-18.
- Sir Vithal N. Chandavarkar Kt., M.A. (Cantab.), Bar-at-Law, 41, Peddar Road, Bombay-26.
- D. C. Pavate, Esq., M.A., The Director of Education, Post Box No. 52, POONA-1.
- G. A. Kamtekar, Esq., B.A., B.Sc. (Bom), B.Sc. (Adin.), M.I.E., 767, Parsee Colony Road No. 1, Dadar, BOMBAY-14. Diwan Bahadur M. K. Jhaveri, M.A., LL.B., 1, Pitale Mansion, Kandewadi, Girgaum, BOMBAY-4.
- Professor C. N. Vakil, M.A., M.Sc., (Econ.) Hond., F.S.S., Director, University School of Economics and Sociology, Fort, Bombay-1.
- Principal N. M. Shah, M.A., F.R.A.S., Vithalbhai Patel Mahavidyalaya, P. O. Vallabhnagar, Via Anand (Western Rly.)
- P. R. Awati, Esq., B.A., D.I.C., 47-5, Prabhat Road, POONA-4.
- Dr. Miss J. Jhirad, M.D., Ruby Mansion, Darabshaw Road, BOMBAY-26.
- V. K. Joag, Esq., M.A., 19, Bund Garden Road, POONA.
- G. I. Patel, Esq., B.A., 4, Walkeshwar Road, BOMBAY-6.
- K. M. Khadye, Esq., M.A., 366-5, Narayan Peth, POONA-2.

N. V. Modak, Esq., C.I.E., B.E., A.M.Inst., C.E., M.I.E.,
 " Udyam " Near Shivaji Park, Dadar, BOMBAY-19.

M. K. Desai, Esq., B.A., LL.B.,
 Senior Officer, State Transport Offices, Worli.
 BOMBAY-18.

N. S. Gupchup, Esq., B.Sc., B.E., A.M.I.E.,
 1204/13, Shivajinagar, POONA.

Dr. Chunibhai S. Patel, M.B., B.S., L.R.C.P., M.R.C.S.,
 F.R.C.S., Bombay View, New Queen's Road,
 BOMBAY-4.

The Hon. Mr. Justice P. B. Gajendragadkar, M.A., LL.B.,
 C-11, Mafatlal Park, Warden Road, BOMBAY-26.

Registrar

Mr. S. R. Dongerkery, B.A., LL.B.

Deputy Registrar

Mr. T. V. Chidambaran, B.Sc., J.P.

Librarian

Mr. D. N. Marshall, M.A., Dip., Lib.

Teaching Staff

(a) Department of Economics

C. N. Vakil, M.A., M.Sc.(Econ. Lond.), F.S.S.,
 Professor of Economics and Head of the Department
 of Economics.

D. T. Lakdawala, M.A., Ph.D.,
 Reader in Economics.

D. R. Samant, M.A.,
 Lecturer in Economics.

B. V. Krishnamurthi, M.A., Ph.D.
 Lecturer in Economics.

M. L. Dantwala, M.A.,
 Reader in Agricultural Economics.

K. N. Naik, M.A., Ph.D.,
 Lecturer in Agricultural Economics.

C. H. Shah, B.Com., Ph.D.,
 Lecturer in Agricultural Economics.

(b) Department of Sociology

G. S. Ghurye, Ph.D. (Cantab.), M.A.,
Professor of Sociology and Head of the Department of
Sociology.

K. M. Kapadia, Ph.D.,
Reader in Sociology.

A. R. Desai, Ph.D.,
Lecturer in Sociology,

Miss P. H. Cabinetmaker, Ph.D.,
Lecturer in Sociology.

(c) Department of Civics and Politics

K. P. Mukerji, M.A., B.L., D.Phil.

Sir Pherozeshah Mehta, Professor of Politics and civics.

Miss A. Dastur, Ph.D.,
Reader in Politics.

R. Dwarkadas,
Lecturer in Politics.

Miss Usha H. Mehta, M.A., Ph.D., Edwin Montague,
Lecturer in Politics.

University Department of Chemical Technology Staff

Mody, Professor of Chemical of Technology and Director
of the Department.

K. Venkatraman, M.A. (Madras), M.Sc. (Tech.), Ph.D.,
D.Sc. (Manch.), F.R.I.C., F.N.I.

Professor of Dyestuff Technology—
B. D. Tilak, D.Phil (Oxon.), B.Sc.(Tech.), Ph.D.

Professor of Textile Chemistry—
G. M. Nabar, Ph.D. (Manc.), B.A., M.Sc., M.Sc. (Tech.),
F.R.I.C., F.T.I.

Professor of Chemical Engineering—
O. P. Kane, M.Sc.(Bom.), Ph.D.(Lond.), D.I.C.

Singhane, Reader in Chemical Engineering—
S. M. Shah, Ph.D.(Lond.), B.Sc.(Tech.), D.I.C.

Sir Homi Mehta, Reader in Oils, Fats and Soaps—
J. G. Kane, M.Sc.(Bom.), Ph.D. (Wisconsin).

Sir Dorabji Tata, Reader in Pharmaceutical Chemistry—
M. L. Khorana, B.Sc.(Pharm.), M.S.(Mich.).

Sir Homi Mehta, Reader in Plastics, Paints and Varnishes—
N. R. Kamath, B.Sc.(Tech.).

Reader in Colour Chemistry—
V. K. Dikshit, M.Ch.E. (Brooklyn), B.Sc.(Tech.).

Reader in Textile Chemistry—
S. H. Mhatre, Ph.D.(Manc.), M.Sc.(Tech.), Ph.D., F.T.I.

Reader in Food Technology—
A. Sreenivasan, M.A., D.Sc.(Madras), F.R.I.C.

Snighanee, Reader, General Engineering—
M. V. Joshi, B.E.(Bom.), B.Sc.(Tech.) (Manch.).

Snighanee, Lecturer in Industrial Optics—
M. R. Padhye, M.Sc., Ph.D.

Singhaneer Lecturer in Fuel Technology—
Vacant.

Singhaneer Lecturer in Chemical Engineering—
B. Narayan Das, B.Sc.(Mys.) M.Sc.(Calc.), C.I.I.Sc.,
M.I.I.Chem. E.M.A. Ch.E. A.M.I.E., M. Electrs,
Chem. Soc.

Singhaneer Lecturer in Pharmacy—
Mrs. Manik R. Baichwal, B.Sc., M.Sc.(Tech.).

Lecturer in Experimental Dying—
Vacant.

Lecturer in Applied Mathematics—
D. K. Sen, M.Sc., Ph.D.

(d) Department of Statistics

M. C. Chakrabarti, M.Sc.(Dacca.)
Reader in Statistics and Head of the Department.
K. S. Rao, M.A. (Andhra),
Lecturer in Statistics.
A. M. Kshirsagar, M.Sc.,
Lecturer in Statistics.
K. C. Chanda, M.Sc.(Cal.),
Lecturer in Statistics.

AFFILIATED COLLEGES AND THEIR STAFF**ARTS AND SCIENCES COLLEGES****Elphinstone College, Bombay-1**

Principal—Nayer L. Ahmed, M.A., B.Litt.(Oxon.).

Institute of Science, Bombay-1.

Principal—F. R. Bharucha, D.Sc., (Montepellier), B.A., F.N.I.

St. Xavier's College, Bombay-1

Principal—Rev. Father M. Balaguer, S.J., D.D.Greg., Ph.D.Greg.,
Ph.D.(Lond.).

Wilson College, Bombay-7

Principal—Rev. Dr. James Kellock, M.A., D.D.(Glas.).

Ismail Yusuf College, Jogeshwari

Principal—G. C. Bannerjee, M.A.

Ramnarain Ruia College, Bombay-19

Principal—Dr. N. N. Murti, B.A.(Madras), Ph.D.(Lond.), D.F.C.

Sophia College, Bombay-16

Principal—Rev. Mother W. Ward, M.A.(Lond.), M.R.S.T.,
L.R.A.M.

Khalsa College, Bombay-19

Ag. Principal—G. S. Bal, M.Sc.(Panjab).

Siddhartha College, Bombay-1

Principal—V. S. Patankar, M.Sc., Ph.D.

**Megji Mathradas Arts College and Norrondass Manordass
Science Institute, Andheri**

(**Bhawan's College**)

Principal—F. Correia-Afonso, M.A.(Oxon.), M.A., LL.B.

**Rishi Dayaram and Seth Hahsaram National College,
Bandra**

Principal—K. M. Kundanani, M.Sc.

Jai Hind College, Bombay-1

Principal—T. M. Advani, M.A, LL.B.

Ruparel College, Bombay-16

Principal—C. B. Joshi, B.A.(Cantab.), M.A.

COMMERCE COLLEGES

**Sydenham College of Commerce and Economics
Bombay-1**

Principal—S. K. Muranjan, M.A., D.Se.(Econ.) (Lond.).

**R. A. Podar College of Commerce and Economics,
Bombay-19**

Principal—L.N. Welingkar, B. Sc. (Econ.) (Lond.)

Siddharth College of Commerce

Principal—G. R. Dalvi, M.A.

TRAINING COLLEGE

Secondary Training College, Bombay-1

Principal—Miss Sulabha S. Panoandkar, M.A., M.Litt., Camb.,
T.D.

St. Xavier's Institute of Education, Bombay-1

Principal—Rev. A. Solagran, S. J., M.A., Ph.D., D.D.

ENGINEERING AND TEXTILES COLLEGE

Victoria Jubilee Technical Institute, Matunga, Bombay-19

Principal—P. N. Joshi, B.A., M.Sc.(Tech.), (Manc.), F.R.I.C.

VETERINARY COLLEGE

Bombay Veterinary College, Bombay-12

Principal—S. R. Chadha, B.Sc.(Panjab.), M.R.C.V.S.

LAW COLLEGE

Government Law College, Bombay-1

Principal—S. G. Chitale, M.A., LL.B.

MEDICAL COLLEGES

Grant Medical College, Bombay-1

Principal—D. P. Sethna, O.B.E., F.R.C.S.Ed.

Seth G. S. Medical College, Bombay-12

Principal—R. G. Dhayagude, M.D.(Dean.).

Topiwala National Medical College, Bombay-8

Principal—S. G. Vengsarkar, M.D.

Sir C. E. M. Dental College, Bombay-12

Principal—D. P. Sethna, O.B.E., F.R.C.S.Ed.

COLLEGE OF ARCHITECTURE

Sir J. J. School of Art, Bombay

Dean—Mr. J. D. Gondhalekar

Number of Students in the University Departments and affiliated Colleges*

Name of the College	1948-49	1949-50	1950-51	1951-52 (as on 31st) March, 1952
1. University School of Economics & Sociology, Bombay ..	342	399	416	381
2. University Department of Chemical Technology, Matunga, Bombay ..	221	178	256	312
3. University Department of Statistics, Bombay ..	24	45	46	50
4. Institute of Science, Bombay ..	362	384	389	390
5. Sophia College, Bombay ..	213	247	287	353
6. Elphinstone College, Bombay ..	1,035	1,061	973	970
7. St. Xavier's College, Bombay ..	2,399	2,519	2,582	2,711
8. Wilson College, Bombay ..	1,291	1,383	1,522	1,571
9. Ismail Yusuf College, Jogeshwari ..	350	419	490	476
10. Ramnarain Ruia College, Bombay ..	2,435	2,438	2,582	2,718
11. Khalsa College, Bombay ..	1,697	1,864	1,789	1,699
12. Siddharth College, Bombay ..	2,462	2,438	2,582	2,790
13. M. M. Arts College & N. M. Science Institute, Andheri ..	826	724	774	735
14. Jai Hind College, Bombay ..	544	1,207	1,429	1,612
15. R.D. & S.H. National College, Bandra ..	..	326	812	1,544
16. Government Law College, Bombay ..	430	454	792	847

*Colleges from outside Bombay which were affiliated to this University during the years and are now under the jurisdiction of the different regional Universities in the State of Bombay have been excluded from this list.

Name of the College	1948-49	1949-50	1950-51	1951-52 (as on 31st March 1952)
17. Victoria Jubilee Technical Institute Matunga, Bombay ..	128	248	334	466
18. Bombay Veterinary College, Bombay ..	154	170	146	160
19. S. T. College, Bombay	109	99	103	104
20. Grant Medical College, Bombay ..	900	982	938	898
21. Seth G. S. Medical College, Bombay ..	536	307	610	592
22. Topiwala National Medical College, Bombay ..	160	235	305	348
23. Sir C. E. M. Dental College, Bombay ..	57	62	62	70
24. Sydenham College of Commerce & Econo- mics, Bombay ..	794	759	840	913
25. R. A. Podar College of Commerce & Econo- mics, Bombay ..	1,276	1,346	1,444	1,230

Nos. of successful candidates at various University Examinations

Examination	1948-49	1949-50	1950-51	1951-52
Intermediate Examination				
in Arts	2,371	2,336	2,041	1,652
B.A. (Old)	724			
B.A. (Honours)	1,031	1,331	1,273	1,318
				B.A. (Special)
B.A. (General)	508	642	276	166
M.A. (Papers)	293	262	249	264
M.A. (Thesis)		5	3	2
B.T.	261	207	102	106
T.D.	112	84	107	106
M.Ed. (By papers)	14	25	28	38

Examination	1948-49	1949-50	1950-51	1951-52
M.Ed. (By thesis) .. ..	..	3	1	2
Intermediate Examination in Commerce	640	460	447	474
B.Com.	599	861	..	..
B.Com. (Old) .. ..	..	..	148	..
B.Com. (Under New Rules) ..	..	..	498	386
M.Com.	19	25	12	62
M.Com. (By thesis) .. ..	..	..	..	1
Ph.D.	31	43	40	58
D.Litt. .. ..	..	..	..	..
Dip.Lib.	18	31	26	19
Intermediate Examination in Science	2,498	2,720	1,921	1,775
B.Sc. (Subsidiary) held in October	287	224	265	137
B.Sc. (Principal & Subsidi- ary) Held in April.	1,209* (1,172)	1,195* (1,044)	1,039* (938)	800 (887)
M.Sc. (Maths)	12	18	25	22
M.Sc. (Physics)	19	16	13	12
M.Sc. (Chemistry)	7	19	13	11
M.Sc. (Botany)	1	3	2	1
M.Sc. (Zoology)	17	15	8	12
M.Sc. (Geology)	2	..	..	..
M.Sc. (Thesis)	67	52	54	83
M.Sc. (Translation Test) ..	69	113	77	..
Ph.D. (Translation Test) ..	..	..	..	5
F.Sc. (Agri.)	148	57	..	..
S.Sc. (Agri.)	158	73	..	..
B.Sc. (Agri.)	154	68	65	..
M.Sc. (By papers) .. ..	..	..	..	..
M.Sc. (Agri.) by thesis ..	3	1	1	3
F.E.	200	236	147	..
F.E. (Civil) .. ..	..	..	..	55
F.E. (Mechanical) .. ..	..	..	..	23
F.E. (Electrical) .. ..	..	..	..	25
S.E. (Mech. & Elec.)	16	54	75	57
S.E. (Civil) .. ..	..	32	39	49

* Qualified for the degree of B.Sc.

** Passed in Subsidiary subject only.

Examination	1948-49	1949-50	1950-51	1951-52
B.E. (Civil) (New)	..	*84	*122	..
B.E. (Civil) (Old)	11	17	..
B.E. (Civil) Part I only	20
B.E. (Civil) New Rules	23
B.E. (Mech.) Old	8	2	..
B.E. (Elect.) Old	10	1	..
B.E. (Mech. & Elect.)	..	46*	69*	19*
B.Sc. (Tech.)	73	71	80
B.Sc. (Trans. Test)	69	..	..
M.Sc. (Tech.)	4	10	10
F.Y.Che. Eng.	13
Inter. Text.	..	12	12	18
Third B. Text	..	8	8	13
B. Text	8	9
F.Sc. (Vet.)	50	29	30
S.Sc. (Vet.)	36	40	34
T.Sc. (Vet.)	36	42	35
B.Sc. (Vet.)	14	29	40
1st LL.B.	386	472	304
2nd LL.B.	447	327	277
LL.M. (By papers)	6	1
LL.M. (By thesis)
1st M.B.B.S...	..	417	310	247
2nd M.B.B.S.	..	312	328	347
3rd M.B.B.S.	..	201	272	286
M.D.	36	33	39
M.S.	27	8	14
D. O.	1	3	4
D.P.H.	1	1	5
D.A.	4	2
D.Ped.	2	7	1
D.V.D.	2	5	2
D.L.O.	1	..	3
T.D.D.	1
1st B.D.S.	16	21	22
Final B.D.S.	..	16	17	17
D.M.R.E. 6	1	3	2
B.Sc. (Med.)
B.Pharm.	54

* Qualified for the B. E. Degree
 B. E. (Civil) New and B.E. (Mech. and Elec.) New
 Examinations consist of two parts—Part I and Part II.

Scholarships and Medals

A large number of Endowed Scholarships and Medals is awarded by the University for distinguished proficiency in the several examinations, and each of the affiliated Colleges also awards its own Scholarships and Medals. The University Endowment Fund for Scholarship, Prizes and Medals amount to Rs. 63,33,650 invested in Government Securities and Port Trust and Municipal Bonds.

Library, Laboratories, etc.

The University Library, which is under the control of the Library Committee, is open to Fellows of the University, Principals and Professors of Colleges affiliated to the University of Bombay, the University Staff, Graduates of the University, students of affiliated colleges and such other persons as are admitted by a special order. The Library has over 100,000 volumes of which 6,743 volumes were added during the year 1951-52. The University Departments of Economics and Sociology and Chemical Technology also maintain libraries of their own, which are growing substantially every year and are becoming useful centres of research in these subjects. The nucleus of a library in statistics has been built up in the University Department of Statistics.

There are various Hospitals and Laboratories recognised by the University for purposes of practical work in Medicine and Science.

Provision for Research

Research work for the M.A. and the Ph.D. degrees in Economics and Sociology is done in the University School of Economics and Sociology. A few Research Scholarships, Fellowships and Grants are awarded to deserving students. An account of the facilities for research work available in the Department of Chemical Technology is given in the following pages. Besides the facilities available in the University Departments, there are a number of recognised post-graduate research institutions and hospitals where facilities are available for research work. Teachers from affiliated colleges and recognised post-graduate institutions are recognised for guiding students working for degrees by research. The University also awards a few Research Studentships every year to persons doing research work in institutions under its jurisdiction.

The University awards the following research degrees :

M.A., Ph.D. (in the faculties and Arts, Science, Technology, Medicine and Commerce.)

M.Ed., D.Litt., M.Sc., M.Sc.(Tech.), M.Sc.(Agri.), M.E., D.Sc., LL.M.

Research Grants are awarded every year to deserving persons.

Publication and Extension Work

The University has published some lectures on Linguistics, on Gujarati Literature, the History of Gujarat, and Hindu Law. The University has also published Pali Text series edited by Prof. N. K. Bhagwat, Dr. Mackichan's translation of the introduction to two German books, Dr. Garbe's Bhagavagita, Roth's Nurukta, and Vedic selections. Some Prize Essays have also been published.

Outstanding works written by Teachers and students of the School of Economics and Sociology are published in the University Economics and Sociological Series which was started in 1946, 6 books—4 in Economics and 2 in Sociology—have so far been published in the series.

The University also makes grants of varying amounts to authors in aid of the cost of publication of research works.

A few distinguished persons are invited every year to deliver extension lectures.

University Journal

The University conducts a journal, mainly intended to promote research work by the teachers and students of the University. It has five issues in a year commencing with July and devoted to (1 and 4) History, Economics and Sociology, (2) Arts, (3 and 5) Science, in the cyclic order. The Journal contains original contributions, but abstracts of these submitted for the post-graduate examinations of the University are also published. Its annual subscription is Rs. 12 for five issues, while for Nos. 1 and 4 and 3 and 5 it is Rs. 5 for each section, and for No. 2 it is Rs. 3.

Military and Physical Training and Facilities for Games

Military training is not compulsory in the University. Students are encouraged to enrol themselves in the N. C. C.

Physical training is compulsory for the first two years in colleges. There is provision for outdoor games like cricket, football, tennis and hockey in most of the affiliated colleges and a large number of students take advantage of the facilities offered in this respect.

Associations in the University

Owing to the extensive jurisdiction of the University it was not practicable to have a Central Association or Associations for the benefit of all University students. Most of the colleges maintain societies of their own, such as Debating Unions, Literary Societies, Historical Societies, Dramatic Societies, College Gymkhanas.

Residence

Most of the colleges affiliated to the University provide residential accommodation for a fair proportion of their students.

Budget: General Fund

The total budget expenditure for the year 1952-53 has been estimated to be Rs. 27,66,949.

A Provident Fund exists, and subscription to the Fund at the rate of $6\frac{1}{4}$ per cent on the monthly salary is obligatory on every whole-time officer, teacher or servant appointed after the 31st March, 1925, to a substantive appointment carrying a monthly salary of Rs. 30 upwards, and on every one appointed on or after the 1st January, 1947, to a substantive appointment carrying a salary of rupees fifty or upwards per mensem. The University makes a contribution at the rate of $6\frac{1}{4}$ per cent on the salary of subscriber at the end of each month and compound interest at the rate of $3\frac{1}{2}$ per cent per annum is allowed on the amount standing to the credit of each depositor. On quitting the service of the University, a depositor is entitled to draw out the whole amount standing to his credit in the Fund, provided he has been in the service of the University for at least three years and has been permitted to resign his appointment.

Women's Education

Women are admitted to all the affiliated colleges on equal terms with men-students. The Sophia College for Women, Bombay, has been affiliated to the University for the course of study leading to the B.A. examination.

Universities Information Bureau

The Universities Information Bureau, the University, Fort, Bombay-1, had its origin as an Advisory Committee to the Government of Bombay. However, its work was transferred to the University of Bombay in 1925. There is a Committee attached to the Bureau constituted in accordance with the provisions of O. 60 to O. 65 printed on page 37 of the University Handbook 1950. Part II. The Committee of the Bureau consists of eight members, one of whom is the Vice-Chancellor, while the other seven are drawn from different faculties of this University and a majority of them are those who have experience of Education in foreign countries. Each member represents a particular subject. Resort is had to certain experts with experience of conditions of education as at present in various foreign countries and their advice is sought as and when required. But the present arrangement whereby informally such experts are approached is not working well as the work of these experts has no public recognition. In the circumstances, career pamphlets and other literature as may enable the intending aspirant to make the choice are made available to them.

Universities Information Bureau

Until January 1951 the Bureau was known as the Foreign Universities Information Bureau, but thereafter its name was changed to Universities Information Bureau as its activities were widened by adding a section of Indian Universities and educational institutions in view of the great demand for information regarding facilities for studies available in Indian Universities and educational institutions. Consequential changes in the Ordinances pertaining to the Bureau were made.

The Bureau has a library attached to it. There are cabinets in which are arranged alphabetically prospectuses, handbooks and calendars of various foreign Universities. The sections in respect of U. S. A., U. K., Canada, Australia and Switzerland are complete and up-to-date. With regard to India, the Bureau has recently received the latest prospectuses, handbooks

and calendars. The library contains about 4000 books. It has sitting arrangement for about 15 readers. The library has neither a printed nor a typed catalogue. It is proposed to have a card catalogue. With a view to increase administrative efficiency it is also proposed to have information card indexed in a classified form for ready reference.

As many of the enquiries as can be answered from the material at the disposal of the Bureau are answered, the rest are referred to the Education Department of the Office of the High Commissioner for India, London; the Indian Embassy in Washington, U. S. A. and Indian Embassies in Switzerland, Czechoslovakia, Italy, Belgium, Japan as well as local authorities like the Central Overseas Information Bureau of the Government of India, New Delhi; Inter-University Board of India at Delhi; U. S. Information Services, Bombay, the British Information Services, Bombay and the British Council, Bombay.

The following table gives at a glance the nature and volume of work done by the Bureau for the year ending 30th June 1952 :—

Work at a glance	1951-52	1950-51
No. of documents issued to students on premises	10,204	10,444
No. of documents issued to mofussil students	872	1,368
No. of personal enquiries attended to on an average per day	40	40
No. of letters despatched	7,602	9,582
No. of applications made	379	588
No. of admissions secured	213	328

The University Board of Sports

With the establishment of new Universities in the State of Bombay in recent years, the jurisdiction of this University is now confined to Bombay City and Suburbs only. The Board of Sports of this University is composed of the Administrative Heads of the University Departments and Principals of affiliated colleges and other members, not exceeding four, to be co-opted from among persons possessing expert knowledge and experience in a branch or branches of the Sports. The members co-opted on the Board are nominated by the Syndicate, the duration of their term of office being two years and they are eligible to be co-opted again on the expiry of their term of office.

The objects of the Board are to organise, control, manage and supervise Inter-Collegiate Sports and Tournaments within the jurisdiction of the University and to undertake such Inter-University Competitions as are entrusted to the University by the Inter-University Sports Board. During the year 1951-52, the University was entrusted with the conduct of the Inter-University Badminton Championship.

The University conducted Inter-Collegiate Tournaments in the following games:—

Athletics	..	..	..	..	Swimming
Badminton	..	..	..	..	Table Tennis
Boxing	..	..	..	..	Tennis
Chess ..	..	..	..	..	Tenni-Koit
Cricket	..	..	..	..	Volley Ball
Football	..	..	..	..	Wrestling
Hockey	..	..	..	..	Hu-tu-tu

The Senate sanctioned a grant of Rs. 7,000 to meet the expenses of conducting the above Tournaments.

Inter-University Tournaments: The Senate sanctioned a grant of Rs. 15,000 to enable the University to participate in as many as the Inter-University Tournaments as possible. During the year 1951-52, the University participated in the following Inter-University Tournaments:—

Athletics	..	..	..	..	Hockey
Badminton	..	..	..	..	Swimming
Cricket	..	..	..	..	Tennis
Football	..	..	..	..

The Bombay University won the Badminton Championship for the second year in succession.

ADMISSION TO THE UNIVERSITY COURSES OF STUDY, EXAMINATIONS AND DEGREES

Admission to the University

The minimum qualification for admission to the courses of study leading to each of the degrees of—Bachelor of Arts (B.A.), the Bachelor of Science (B.Sc.), the Bachelor of Commerce (B.Com.), and the Bachelor of Architecture (B.Arch.) courses

in the passing of the S.S.C. Examination of the S.S.C. Examination Board of the Bombay State (if passed with the prescribed subjects and with the prescribed percentage of marks), the Matriculation Examination of any Statutory University in the Indian Union or an examination recognized by the University as equivalent to its former Entrance—(Matriculation Examination). Admission to the courses of study in the University for the Bachelor's degree in Engineering (B.E.), Chemical Engineering (B.Chem.Eng.), and Medicine (M.B., B.S.) is granted only to those who have passed the Intermediate Science Examination of this University or any other equivalent examination in the specified group of subjects. The minimum qualification for admission to the B. T. Degree course is a degree in any Faculty; for the diploma in Teaching S.S.C. (Matriculation) with at least 3 years' experience or the First Year College Certificate examination of a college in this University or the Intermediate Examination of a recognized university or Board; for the Diploma in—Librarianship S.S.C. (Matriculation) examination for the 2 year course and a Degree in Arts, Science and Commerce for 1 year course; for the B.Sc.(Tech.) course, the B.Sc. degree of this University with at least a second class or a B.Sc. degree of a recognized University with at least a second class with prescribed subjects (*vide* details printed under the heading 'Chemical Technology'. The minimum qualification for admission to the—Bachelor of Laws (LL.B.) course is the passing of the Intermediate Arts or Commerce Examination or a degree examination in any other Faculty of the University or an examination equivalent to any of these.

Courses of Study and Examinations

The University offers in *Arts* B.A. (General) and (Special), M.A. and D.Litt. degrees; in Education B. T., and M.Ed. degrees and the Diploma in teaching; the Diploma in *Librarianship*; in Science B.Sc., M.Sc., and D.Sc. degrees; in Commerce B.Com., and M.Com. degrees; in Engineering B.E. (Civil), (Mechanical), and (Electrical), and M. in (Civil), (Mechanical) and—(Electrical); in Textiles, B. Text., in Architecture (B.Arch.); in Chemical Engineering (B.Chem.Eng.); in Law, LL.B. and LL.M. Degrees; in Medicine the degrees of M.B., B.S., M.D., M.S., B.D.S., B.Sc. (Medical), M.Sc. (Medical), D.Hy. and the Diplomas in Public Health, Psychological Medicine, Forensic Medicine, Medical Radiology and Electrology, Anaesthesiology, and in Venereology and Dermatology. The Ph.D. degree is given in Arts, Science, Commerce, Technology and Medicine.

1. Arts

(i) *Intermediate Examination*.—The course of study for this examination extends over two academic years during the first of which candidates are examined by affiliated colleges in the subjects of the First Year Courses which have been grouped as shown below, and the eligibility of candidates to enter upon the courses for the Intermediate Arts or the Intermediate Science is determined in accordance with the subjects in which they satisfy the Principal of a college, as under:—

(i) Candidates with subjects group (a) or group (c) are eligible for entering upon the course for the Intermediate Arts.

(ii) Candidates with subjects of group (b) or group (c) are eligible for entering upon the course for the Intermediate Science Examination.

The following are the Groups and the subjects under them appointed by the University for the first two terms and candidates have to take any one of the three Groups A, B, C, as mentioned below:—

GROUP A

Compulsory Subjects:—

1. English Prose and Poetry (Texts), 100 marks. 3 hours
2. Composition in English with texts, 75 marks. 2 hours

Note.—A book is to be recommended, as an aid to the art of writing. No questions with reference to the context are asked.

3. Modern Indian Language with texts or an additional paper in English with texts. 100 marks, 3 hours.

4. Classical Language or a Modern European Language other than English with texts, 1 paper 100 marks. 3 hours.

Optional Subjects:—

The following are the optional subjects out of which the candidates are required to take any such subjects from among them as carry 300 marks in the aggregate.

1. Indian Administration: 1 paper, 100 marks, 3 hours.
Section I: Growth and Development of the constitution.
Section II: Present Constitution.

2. Civics. 1 paper, 100 marks, 3 hours.
3. Outlines of Ancient Indian History and Culture :
1 Paper, 100 marks, 3 hours.
4. Geography, 1 paper, 100 marks, 3 hours.
5. Mathematics. 2 papers, each of 100 marks and of 3 hours' duration.

GROUP B

1. English Prose and Composition with texts, 100 marks, 3 hours.

Note.—A book is recommended as an aid to the art of writing. No questions with reference to the context are asked.

2. Modern Indian Language with texts or an additional Paper in English with texts. 100 marks, 3 hours.

3. Physics. One paper of 100 marks, 3 hours, 50 marks for practical.

4. Chemistry. One paper of 100 marks, 3 hours, 50 marks for practical.

5. Biology. One paper of 100 marks, 3 hours, 50 marks for practical.

6. Mathematics, Two papers, each of 100 marks and of 3 hours' duration.

GROUP C

Compulsory Subjects :—

1. English Prose and Poetry (Texts) 100 marks, 3 hours.
2. Composition in English with texts. 75 marks, 2 hours.

Note.—A book is recommended as an aid to the art of writing. No questions with reference to the context are asked.

3. Modern Indian Language with texts or an additional Paper in English with texts. 100 marks, 3 hours.

4. Mathematics, Two papers, each of 100 marks and of 3 hours' duration.

Optional Subjects :—

The following are the optional subjects from among which candidates are required to take either Physics or Chemistry, and two other subjects carrying 200 marks in the aggregate.

1. Physics—One paper of 100 marks and 3 hours, and a Practical of 50 marks.
2. Chemistry—One paper of 100 marks and 3 hours, and a practical of 50 marks.
3. Classical Language or a Modern European Language other than English with texts, 1 paper of 100 marks, 3 hours.
4. Indian Administration—One paper of 100 marks and 3 hours.
5. Civics—One paper of 100 marks and 3 hours.
6. Outlines of Ancient Indian History and Culture—One paper of 100 marks and 3 hours.
7. Geography—One paper, 100 marks, 3 hours.

At the Intermediate Examination held by the University at the end of the second year, candidates are examined in the following subjects—

1. English Prose and Poetry (Texts) 100 marks, 3 hours.
2. Composition in English with texts.....75 marks, 2 hours.

Note.—A book is recommended as an aid to the art of writing. No questions with reference to the context are asked.

3. Modern Indian Language with texts or an additional paper in English with texts. . . .75 marks, 2 hours.
4. A Classical Language, or a Modern European Language other than English with texts. . . .100 marks, 3 hours.
5. World History. . . .100 marks, 3 hours.

6. Elements of Economics . . . 100 marks, 3 hours.

7. Mathematics : 2 Papers, each of 100 marks and 3 hours.

Or

Logic : 2 Papers, each of 100 marks and 3 hours.

The minimum for a pass is 30 per cent. of the full marks in each head. Candidates who obtain 60 per cent in the aggregate are placed in the First Class and those who obtain 45 per cent in the Second Class.

(ii) *B.A. (General and Special)*.—The course of study for the B.A. (General) examination extends over two academic years, subsequent to passing the Intermediate Arts Examination and that for the B.A. (Special) examination over the same period.

The Schemes for the B.A. General and Special Examinations are as follows :—

I—B.A. General

I. English (Compulsory) : Two papers of three hours and one hundred marks each, of which one shall include composition.

II. Four other voluntary subjects (with two papers in each of three hours and of one hundred marks each save as hereinafter otherwise provided) to be selected from the following Groups (A) to (G), provided that the candidate chooses his subjects from at least three Groups and provided further that the candidate who takes (D) (*iv*) shall take (D) (*i*) and that the candidate who takes 'F' (*v*) shall take 'F' (*i*) but not D (*iv*).

N.B.—Identical Subjects occurring under two separate Groups shall *not* be offered by candidates as two separate Subjects.

(A) Languages :—

(a) *Modern European*.—English, French, German, Portuguese, Italian, and Spanish—2 Papers based on texts of Modern Literature, Prose, Poetry and Drama in each Language.

(b) *Modern Indian*.—Marathi, Gujarati, Kannada, Sindhi, Urdu and Hindi—

2 Papers as under:

Paper I—Poetry.

Paper II—Drama and Prose : Modern texts.

(c) *Classical—Oriental and European.*—Sanskrit, Pali, Ardha-Magadhi, Arabic, Persian, Avesta-Pahlavi, Latin, Greek and Hebrew—2 Papers—Texts.

(B) Philosophy—

(i) History of Philosophy ; (ii) Psychology ; (iii) Moral and Social Philosophy ; (iv) Experimental Psychology and (v) Education.

(C) History—

(i) Ancient Europe, (ii) Modern Europe, (iii) Ancient and Mediaeval India, (iv) Modern India, (v) Persian History, (vi) Constitutional History, (vii) Political Science, (viii) Ancient Indian Culture and (ix) Islamic Culture.

(D) Economics :—

(i) Principles of Economics, (ii) Economic History, (iii) Political Science, (iv) Statistical Methods and (v) Society and Social Evolution.

(E) Sociology :—

(i) Cultural Anthropology and (ii) Society and Social Evolution.

(F) Mathematics :—

(i) Pure Mathematics ; (ii) Applied Mathematics ; (iii) Algebra and Geometry ; (iv) Calculus and Differential Equations and (v) Statistics.

N.B.—Subjects (iii) and (iv) must be taken together.

(G) Science :—

(i) Physics, (ii) Chemistry, (iii) Botany, (iv) Zoology, (v) Geology, (vi) Geography and (vii) General Science.

II—B.A. Special

I. English (Compulsory) : Two Papers of three hours and one hundred marks each, of which one shall include Composition.

II. Four other voluntary subjects (with two papers in each of three hours and one hundred marks each, save as hereinafter otherwise provided), so that at least three subjects listed in Roman numerals under any one Group from among the Groups (B) to (F), or three heads listed in Roman numerals under any one Language from among the Languages under Group (A)—subgroups (a) to (d), are selected. Provided further that a language offered in addition to the six papers in a language is not from the same sub-group from which six papers are selected. *A student may, notwithstanding what is stated above, be permitted by the Academic Council to offer all the eight papers from the same sub-group, provided that an application is made before the end of the first term, by the student seeking such permission.*

Note 1.—The proviso requiring the choice of an additional language, if offered, to be made from a sub-group other than the one to which the language in which 6 papers are offered for Honours belongs, will be in operation from June 1950.

Note 2.—No candidate can take Statistical Methods in Group D (Economics) and Statistics under Group E (Mathematics at the same time).

The Groups and sub-groups and subjects are as under:—

N.B.—Identical Subjects occurring under two separate Groups shall not be offered by candidates as two separate Subjects.

(A) Languages:—

(a) English:—

(i) Papers I and II—The same as for the B.A. (General).

(ii) Two literary forms: Chaucer (Prologue and a Canterbury Tale), and History of the English Language.

(iii) Criticism and Prosody; History of English Literature.

(aa) Old English:—

(i) Anglo-Saxon

(ii) Middle English

(iii) Social History

(b) Modern European.—French or German or Portuguese or Italian or Spanish.

- (i) Papers I and II—The same as for the B.A. (General).
 - (ii) Translation, essay, Grammar and Oral—2 Papers.
 - (iii) History of Literature from 1500 to 1800 A. D. with a few outstanding illustrative works—2 Papers.
- (c) *Modern Indian* :—Marathi or Gujarati or Kannada or Sindhi or Urdu or Hindi.
- (i) Papers I and II—The same as for the B.A. (General).
 - (ii) Translation, Essay and Grammar—2 Papers.
 - (iii) History of Literature up to 1800 A. D. with a few outstanding illustrative works—2 Papers.
- (d) *Classical* :—Sanskrit or Pali or Ardha-Magadhi or Avesta-Pahlavi or Persian or Arabic or Greek or Latin or Hebrew.
- (i) Papers I and II—The same as for the B.A. (General).
 - (ii) Translation, Grammar and History of Literature—2 Papers.
 - (iii) Old Literature according to the basis requirements of each language—2 Papers.
- (e) Ancient Indian Culture or Islamic Culture—2 Papers each.

(B) Philosophy :—

- (i) History of Philosophy ; (ii) Psychology ; (iii) Moral and Social Philosophy ; (iv) Experimental Psychology ; (v) Education ; (vi) Logic and Metaphysics ; (vii) Psychology and Philosophy of Religion and (viii) Advanced Psychology.

N.B.—Candidates taking Special Examination must take at least one of the subject Nos. (v), (vi), (vii) and (viii). Candidates who take (vii) or (viii) shall take (ii).

(C) History :—

- (i) Ancient Europe, (ii) Modern Europe, (iii) Ancient and Mediaeval India, (iv) Modern India, (v) Persian History, (vi) Constitutional History, (vii) Political Science, (viii) Ancient Indian Culture, (ix) Islamic

Culture, (x) Physical Anthropology and (xi) Cultural Anthropology.

(D) Economics :—

- (i) Principles of Economics, (ii) Economics History, (iii) Political Science, (iv) Statistical Methods, (v) Society and Social Evolution and (vi) Indian Economic Problems.

N.B.—Every candidate for the B.A. (Special) in Economics must offer (i) and (vi).

(E) Sociology :—

- (i) Cultural Anthropology, (ii) Society and Social Evolution and (iii) Social Organization and Social Amelioration.

(F) Mathematics :—

- (i) Algebra and Geometry; (ii) Calculus and Differential Equations; (iii) Mechanics; (iv) Astronomy, Electricity and Magnetism and (v) Statistics.

N.B.—Subjects (i), (ii) and (iii) are compulsory.

(G) Science :—

- (i) Physics, (ii) Chemistry, (iii) Botany, (iv) Zoology, (v) Geology, (vi) Geography and (vii) General Science.

The minimum for passing the B.A. (General) Examination is 30 per cent of the total in compulsory English and 30 per cent of the aggregate of the optional subjects, provided that the candidate has obtained not less than 25 per cent of the marks in each of the optional subjects. Those obtaining 45 per cent or more but less than 60 per cent in the aggregate of the optional subjects (irrespective of marks obtained in each optional subject) are declared to have passed the B.A. (General) Examination with second class Honours.

Those obtaining 60 per cent or more in the aggregate of the optional subjects (irrespective of the marks obtained in each optional subject) are declared to have passed B.A. General Examination with first class Honours.

The minimum for passing the B.A. (Special) Examination is 30 per cent of the total marks in Compulsory English and 35

per cent of the total marks in the aggregate of the optional papers.

Those who obtain 45 per cent or more but less than 60 per cent in the aggregate of the optional papers are declared to have passed with second class Honours.

Those who obtain 60 per cent or more in the aggregate of the optional papers are declared to have passed with first class Honours.

(iii) **Master of Arts (M.A.)**

The course of study extends over two years subsequent to passing the B.A. Examination. A candidate is required to select one of the following branches ;

1. Languages, 2. History—Economics—Sociology—Politics ;
3. Philosophy ; 4. Mathematics and Statistics ;
- Ancient Indian Culture, and 6. Islamic Culture.

The examination consists of eight papers in each subject. A thesis may be offered in lieu of the whole examination in History, Economics, Politics, Sociology and Philosophy or in lieu of the four (out of the six) Principal Papers in Sanskrit, Pali and Ardha-Magadhi, Persian, or Arabic subject to certain conditions.

The standard of passing is as follows :—

(a) **Languages**

25 per cent marks in each of the eight papers, 30 per cent in the total of the two papers in subordinate language and 40 per cent in the total of the six papers in Principal Language. A candidate offering a thesis in lieu of four principal papers in his Principallanguage must obtain, in order to pass the examination, 25 per cent of the full marks in each of the four papers in which he appears, 30 per cent in the total of the two papers in his Subordinate language, 37½ per cent in the thesis and 40 per cent in the thesis and the two papers in the Principal language taken together.

(b) (i) **History, Economics, Sociology and Politics, Philosophy**

(ii) **Ancient Indian Culture and (iii) Islamic Culture.**

(i) One-fourth of the full marks in each paper and (ii) three-eighths of the total marks obtainable.

(c) Mathematics

(i) One-fourth of the full marks in each paper and (ii) three-eighths of the total marks obtainable, *or* 40 per cent of the total marks obtainable.

(d) Statistics

(i) One-fourth of the full marks in each paper and $37\frac{1}{2}$ per cent of the full marks in the two practicals and the laboratory note-books combined and (ii) three-eighths of the total marks obtainable, *or* (1) 40 per cent of the total marks obtainable and (2) $37\frac{1}{2}$ per cent of the full marks in the two practicals and the laboratory note-books combined.

Successful candidates who obtain 65 per cent of the total marks are placed in the First Class and those obtaining 50 per cent in the Second Class.

(iv) *Diploma in Librarianship*.—A candidate who has passed the S.S.C. Examination of the S.S.C. Examination Board, Bombay State with the prescribed subjects and the prescribed percentages of marks on Entrance or the Matriculations Examination of the University of Bombay or an examination recognized as equivalent to it and has kept four terms at the Diploma Class in Librarianship conducted by the University of Bombay and (ii) completed the prescribed course of practical work to the satisfaction of the University Library Committee, is permitted to appear for the examination which consists of

Part I—Written Examination.

Part II—Practical Examination.

Candidates have to appear in both parts simultaneously.

Note.—A candidate who has entered upon the course for the Diploma in Librarianship after acquiring five or more years experience of work in a Library approved by the University Library Committee, or after passing the Degree Examination in Arts, Science or Commerce of this University or of a University recognised by this University, is required to keep only two terms and to complete the prescribed course to the satisfaction of the Universities Library Committee.

Written Examination

Paper I—History of Libraries and Library movement, Bibliography and Book-section.

Paper II—Library organization.

Paper III—Library Administration and Reference Work.

Paper IV—Classification.

Paper V—Cataloguing.

Paper VI—Outlines of the cultural History of India.

Part VII—General Knowledge.

Practical Examination

In Part II of the Examination candidates are required appear for a practical tests in

- (i) Classification.
- (ii) Cataloguing.
- (iii) Oral and practical test in Reference Service.

To pass the examination a candidate must get a minimum of 40 per cent marks in the written examination (all papers together) and a minimum of 50 per cent marks in the practical examination. A candidate obtaining 70 per cent or more marks in the written and practical examination together is considered to have passed with distinction.

II. Science

(i) *Intermediate Examination.*—The Intermediate Science Examination is held by the University at the end of the Second year. A candidate has to pass in either Group B or Group C in the First year certificate Examination and is required to study and is examined in composition in English and Composition with Texts (Paper I) in a Modern Indian Language with Texts or an additional Paper in English and Physics (two papers and a practical), Chemistry (two papers and a practical), and Mathematics (two papers), or Geology or Biology (two papers and a practical). To pass the Examination, a candidate must obtain 33 per cent of the total marks in Mathematics, 33 per cent in each paper and in each practical examination in other subjects and 30 per cent in Composition in English and Modern Indian Language or an additional paper in English. Candidates who obtain 60 per cent

in the aggregate are placed in the First Class and those obtaining 45 per cent in the Second Class.

(ii) *Bachelor of Science (B.Sc.)*.—The course extends over two years subsequent to passing the Intermediate Examination in Science. Candidates may take any two of the following subjects: Mathematics, Physics, Chemistry, Botany, Geology, Zoology, as a subsidiary subject only. Animal Physiology, Anatomy and Embryology, Microbiology and Geography. Of the selected subjects, one will be a principal subject and the other subsidiary. At the examination, papers are set as follows:

<i>Subject.</i>	<i>As a Subsidiary Subject.</i>	<i>As a Principal Subject.</i>
Mathematics ..	4 papers of three hours each.	8 papers of three hours each.
Physics ..	2 papers and 2 practical examinations.	4 papers and 4 practical examinations.
Chemistry ..	2 papers and 2 days' practical examination.	4 papers and 3 days' practical examination.
Botany ..	2 papers and 2 practical examinations.	4 papers and 4 practical examinations.
Geology ..	2 papers and 2 practical examinations.	4 papers and 4 practical examinations.
Zoology ..	2 papers and 2 practical examinations.	4 papers and 4 practical examinations.
Animal Physiology	2 papers and 2 practical examinations.	3 papers and 3 practical examinations and an oral examination.
Anatomy and Embryology.	2 papers and 2 practical examinations and an oral examination.	4 papers, 4 practical examinations and an oral examination.
Microbiology	2 papers, 2 practical examinations and an oral examination.	3 papers, 3 practical examinations and an oral examination.
Geography ..	2 papers and 2 practical examinations.	(As a subsidiary subject only.)

For a pass, candidates must obtain in each subject 33 per cent in the papers taken together, and in the practical examination taken together, or in Mathematics in all the papers taken together. Successful candidates who obtain 60 per cent in their principal subject and 45 per cent in the subsidiary subject are placed in the First Class and those who obtain 48 per cent in

the principal subject and 40 per cent in the subsidiary subject are placed in the Second Class. Successful candidates who obtain 48 per cent of the marks in the principal and the subsidiary subjects taken together are placed in the Second Class if they obtain 45 per cent in the principal subject and those who obtain 60 per cent of the total marks in the principal and subsidiary subject taken together are placed in the First Class, if they obtain 55 per cent in the principal subject. A candidate who secures 66 per cent in the principal subject is declared to have passed with distinction.

(iii) Master of Science (M.Sc.)

Bachelor of Science of this University or holders of an equivalent degree are admitted to the courses of study for the M.Sc. Degree which extends over a period of two years.

The M.Sc. Examination can be taken (i) by research alone (ii) by written examination and practicals (where possible) and (iii) Partly by research and partly by examination and practicals (where possible). The Examination comprises of the following branches :—

1. Mathematics and Statistics
2. Physics
3. Chemistry
4. Botany
5. Zoology
6. Geology
7. Animal Physiology
8. Microbiology.

The Examination in Mathematics and Statistics is the same as at the M.A. Examination. There are four papers and four practicals in Physics, Chemistry, Botany, Zoology and Microbiology, and four papers at least three days practicals in Geology.

An outline of the scheme for the M.Sc. Examination, partly by dissertation and partly by papers and practicals (where possible) is as under :—

- (1) Three papers each carrying 100 marks and of three hours' duration and three practicals each carrying 100 marks, or six papers in the case of Mathematics each carrying 100 marks and of three hours' duration.

- (2) A dissertation or a dissertation and a practical according to the needs of each science subject, as may be recommended by the respective Boards of Studies, carrying 200 marks in all.

The standard prescribed for passing and classes in Mathematics and Statistics is the same as that prescribed at the M.A. Examination in Mathematics and Statistics. In other subjects Candidates are required to obtain 40 per cent of the aggregate of the marks assigned to the papers and 40 per cent of the aggregate of the marks assigned to the practicals. Of the successful candidates, those who obtain 60 per cent or more of the marks are placed in the First Class and those who obtain 50 per cent or more in the Second Class.

III. Commerce

(i) *Intermediate Examination*.—The course of study extends over two academic years, at the end of the first of which candidates are examined by colleges in the following subjects prescribed by the University for the first two terms in commerce.

Group A—

1. English—Two papers—50 marks each.
 2. Composition in a Modern Indian Language or French or German—One paper—50 marks.
- (Marathi, Gujarati, Hindi, Sindhi, Urdu and Kannada are the recognized Modern Indian Languages).

Or

An additional paper in English—50 marks.

Group B—

3. Book-keeping and Commercial Arithmetic—One paper—100 marks.
4. Elements of Commerce—One paper—100 marks.
5. Salesmanship and Publicity—One paper—100 marks.

Group C—

6. Economic and Commercial Geography—One paper—100 marks.
7. Elements of Civics and Indian Administration—One paper—100 marks.

Or

Mathematics—One paper—100 marks.

At the Intermediate Examination Candidates are examined in the following subjects :—

Group A—

1. English—One paper—100 marks.
2. Commercial Correspondence and Composition—One paper—100 marks.
3. Composition in a Modern Indian Language or French or German—One paper—50 marks. (Marathi, Gujarathi, Hindi, Sindhi, Urdu and Kannada are the recognized Modern Indian Languages).

Or

An Additional paper in English—50 marks.

Group B—

4. Elements of Economics—One paper—100 marks.
5. Forms of Economic Organization (with special reference to India and the United Kingdom),—One paper—100 marks.

Group C—

6. Accountancy—One paper—100 marks.
7. Either Secretarial Practice or Insurance or Mathematics—One paper—100 marks.

The minimum for a pass is 33 per cent of full marks in each subject and 40 per cent in each group. A candidate obtaining 60 per cent of the total marks obtainable is placed in the First Class and those obtaining 50 per cent in the Second Class.

(ii) *Bachelor of Commerce (B.Com.)*.—The course extends over two years subsequent to passing the Intermediate Examination in Commerce of this University. Candidates will be examined in the following subjects :—

Group A—

1. Principles of Economics I—Two papers of 100 marks each.
2. Modern Economic Development—One paper—100 marks.
3. English—One paper—100 marks.

Group B—

4. Business Organization—One paper—100 marks.

5. Mercantile Law—One paper—100 marks.

6. Statistics and Scientific Methods—One paper—100 marks.

Group C—

7. Any one special subject of the following—3 papers—100 marks each.

1. Accounting and Auditing.
2. Actuarial Science.
3. Banking.
4. Economics of Cotton.
5. Public Finance and Administration.
6. Statistics.
7. Transport.
8. Theory and Practice and Co-operation.

To pass the examination the candidate must obtain 33 per cent of the full marks in each subject and 40 per cent in each group. Those of the successful candidates who obtain 60 per cent of the total marks obtainable are placed in the First Class (Honours) and those obtaining 50 per cent in the Second Class (Honours).

(iii) *Master of Commerce (M.Com.)*.—Any person who has taken the degree of the Bachelor of Commerce of this University or of any other University recognized by this University as equivalent thereto may, after he has worked under the guidance of a recognized University teacher for at least two years subsequent to his passing the Bachelor of Commerce Examination, be admitted to the examination for the degree of Master of Commerce in accordance with the relevant regulations.

Candidates may appear *either* for a written examination of 8 papers each of 3 hours, duration and carrying 100 marks, *or* may submit a thesis on a subject dealt with in any of the papers prescribed, in lieu of the whole of the written examination. The written examination shall consist of the following subjects :—

Group A—Compulsory subjects.

1. Public Economics—One paper—100 marks.
2. Organized Markets—One paper—100 marks.
3. Organization of Trade and Transport—One paper—100 marks.
4. Corporation Finance—One paper—100 marks.

Group B—Voluntary Subjects

(a) *Cost Accounting*—4 Papers—100 marks each.
or any two of the following subjects :—

- (b) *Actuarial Science (Life Office)*—Two papers of 100 marks each.
- (c) *Demography and Mortality investigations*—Two papers of 100 marks each.
- (d) (i) *Quality Control*—1 paper of 100 marks.
(ii) *Economics Statistics*—1 paper of 100 marks.
- (e) (i) *Agricultural Co-operation*—1 paper of 100 marks.
(ii) *Co-operative Finance and Marketing*—1 paper of 100 marks.
- (f) (i) *Organisation of Industries*—1 paper of 100 marks.
(ii) *Labour Administration*—1 paper of 100 marks.
- (g) (i) *Foreign Exchanges*—1 paper of 100 marks.
(ii) *International Banking*—1 paper of 100 marks.

To pass the examination the candidate must obtain 30 per cent of the full marks in each paper and 40 per cent in each group. Successful candidates who obtain 65 per cent of the total marks obtainable are placed in the First Class and those obtaining 50 per cent in the Second Class.

IV. Teaching

(i) *Diploma in Teaching*.—A candidate who has passed the Matriculation or the Entrance Examination of this University or S.S.C. Examination of the S.S.C. Examination Board, Bombay State, in the prescribed subjects and with the prescribed percentages of marks or an examination recognized as equivalent to the Matriculation, and has obtained subsequently teaching experience for a period of not less than 3 years, is allowed to appear for the examination for the Diploma in Teaching, provided he has kept two terms (each of 65 days) at a College affiliated to this University for the said Diploma and has completed the prescribed course of practical work to the satisfaction of the head of his college. Candidates who have passed the Inter-Arts, Inter Science and Inter-Commerce Examinations can appear for the said Diploma after keeping two terms. The examination consists of two parts.

- Part I (Four papers)—Written examination.
- Part II (Two lessons)—Practical examination.

Part I

Paper I—Elementary Principles of Education and Psychology ;

Paper II—Special Methods :

Paper III—General Methods, School Hygiene and School Administration ;

Paper IV—An outline of Twentieth Century developments in Indian Education and Educational Administration in the Province of Bombay.

In the papers of Methods—General and Special—candidates shall answer questions on the Methods pertaining to the subjects selected by them for Part II.

Part II**Practical Examination**

In part II of the examination the teaching ability of candidates shall be judged by a test in two lessons, in any two out of three school subjects selected by the candidates for practice lessons. They will be tested in their practical skill in class management as well as in class teaching. They will be required to produce for inspection by the examiners :—

- (a) A diary of demonstration and directed lessons observed;
- (b) A journal containing notes of lessons given, together with the observations on these lessons by the Master of Method.

The total marks for the examination shall be 400 for Theory and 200 for Practical.

A candidate obtaining 40 per cent of the total marks separately in Part I and in Part II is declared to have passed the examination.

A candidate obtaining 65 per cent in the aggregate and not less than 50 per cent in Part II is declared to have passed with distinction.

(ii) *Bachelor of Teaching*.—Graduates of this or of any other recognized University who have (i) kept two terms (the first and the second) of lectures on the Theory and Practice of Education

in a Training College affiliated to this University for the purposes of the B.T. Degree, and (ii) completed a course of practical work, extending over two school terms to the satisfaction of the Head of the Institution in which the candidate is studying. The examination is held in two parts: Part I—Written Examination and Part II—Practical Examination. A candidate is not permitted to appear for Part II unless he produces a satisfactory certificate that he has served, subsequent to his passing the degree Examination, as a full-time teacher for 100 working days on the staff of a school on schools approved by the Syndicate prior or subsequent to his keeping two terms' attendance in a Training College.

Written Examination

1. *Theory of Education*—Psychological.
 - (i) Educational Psychology.
 - (ii) Experimental Psychology and Statistical Methods.
2. *Theory of Education*—Philosophical.
 - (i) Principles of Education.
 - (ii) General Method.
3. *Practice of Education*—(Special Methods).

Method in any *two* of the following :—

- (i) Method in English.
- (ii) Method in Modern Indian Languages.
- (iii) Method in Sanskrit.
- (iv) Method in Persian.
- (v) Method in French.
- (vi) Method in History.
- (vii) Method in Geography.
- (viii) Method in Mathematics.
- (ix) Method in Science.

4. *Educational Administration*—
 - (i) School Organization and Management.
 - (ii) School Hygiene and Educational administration.

In Part II of the Examination, candidates will be tested in their practical skill in class management and class teaching. Each candidate will be required to give lessons in two special subjects selected by him under Part I.

The total number of marks for the Part I examination will be 500, and that for Part II—300.

To pass the Examination in either Part I or Part II, a candidate must obtain not less than 40 per cent of the total number of marks for the said Part.

To pass the whole examination, a candidate must satisfy the Examiners in Parts I and II and obtain not less than 40 per cent of the total marks in each.

Such of the candidates as appear for Parts I and II at the same time and obtain an aggregate of 66 per cent or more in each Part are declared to have passed the examination with distinction ; those who obtain 60 per cent. or more in the aggregate of both the Parts taken together at one and the same examination are declared to have passed the examination in the First Class and those who obtain 50 per cent. or more in the aggregate of both the parts taken together at one and the same examination are declared to have passed the examination in the Second Class.

(iii) **Master of Education (M.Ed.)**

Any person who has taken the Degree of Bachelor of Teaching of this University or a Degree of another University recognized as equivalent thereto may be admitted to the examination for the Degree of Master of Education, after having fulfilled the requirements as laid down in the following Ordinances and Regulations :

The M.Ed. Degree may be taken by :—

1. Thesis *or*
2. Paper and Dissertation.

1. M.Ed. Examination by Thesis

A candidate desiring to submit a thesis must have worked under the guidance of a Recognized Post-graduate Teacher for at least two years subsequent to his passing the B.T. Examination. The thesis shall be the candidate's own work carried out under the guidance or supervision of the teacher and shall be either (i) a critical analysis of existing data or, (ii) a record of original investigation, or (iii) a combination of these, and shall be accompanied by a certificate signed by the teacher stating that the thesis is worthy of examination. The examination to be taken by thesis shall be on a subject connected with the history, theory, practice or administration of education.

2. M.Ed. Examination by papers and dissertation

(a) A candidate desiring to appear for the M.Ed. by papers and dissertation shall:

- (i) if he is a full-time student, undergo a regular course of study in an institution recognized for the purpose for *one academic year* after passing the B.T. Examination.
- (ii) if he is a part-time student, undergo a regular course of study in an institution recognised for the purpose for *two academic years* after passing the B.T. Examination.

Explanation

A full-time student is a student who is not employed and who attends an institution recognized for the purpose for not less than four hours per day, for the purpose of lectures, tutorials and library work.

Note:—Attention of the candidates is drawn to the following rule relating to post-graduate studies.

“No post-graduate student will be eligible to appear for an examination by papers for a post-graduate degree unless he has attended not *less than two-thirds* of the number of lectures delivered in the subject.”

(b) A candidate may also appear for the M.Ed. examination by papers and dissertation if he has worked under the guidance of a recognized teacher for a period of at least two years after passing the B.T. examination.

The scheme of the M.Ed. Examination by papers and dissertation is as follows:—

(1) Dissertation (obligatory)—200 marks.

(2) *Compulsory Papers*:

Paper I—Philosophy of Education—100 marks—3 hours.
 Paper II—Advanced Educational Psychology—100 marks—3 hours.

(3) *Optional Papers*: Every candidate shall appear in two

papers (each of three hours' duration and carrying 100 marks from any *one* of the following five optional groups :

Group I—Education in Modern India—Paper I and Paper II.

Group II—Administration of Education—Paper I and Paper II.

Group III—Comparative Education—Paper I and Paper II.

Group IV—History of Educational Thought—Paper I and Paper II.

Group V—Experimental Education—Paper I and Paper II.

or
Vocational guidance for Paper II.

The Dissertation shall be on an educational topic approved by the University. A student shall submit to the University not later than the 20th July, the topic on which he proposes to work for the purpose of his dissertation. Such approval should normally be communicated to the student before the end of September following. If a subject suggested by any student is not approved he will be at liberty to suggest others provided that in all such cases a subject is got approved by the end of October at the latest.

A full-time student shall submit his dissertation at least one month before the date of the examination ; and a part-time student or a student working under the guidance of a University Teacher under the provision of Regulation 80 (b) shall submit his dissertation at least six months before the date of the examination.

To pass the examination a candidate must obtain 30 per cent of the marks in each paper, 40 per cent in the dissertation and 40 per cent in the whole examination. Those of the successful candidates who obtain 65 per cent or more of the total marks will be placed in the First Class and those obtaining 50 per cent or more in the Second Class provided that a candidate whose marks are carried over under 82-A shall *not* be eligible for a class or any University awards.

V. Agriculture

There is no Agricultural Collège at present affiliated to this University and examinations in Agriculture are not, therefore, held by the University at present. Facilities, however, exist in the University School of Economics and Sociology for doing

Research in Agricultural Economics for the M.Sc.(Agri.) degree by thesis. Some teachers belonging to different recognized institutions have also been recognized for guiding students for the M.Sc.(Agric.) and the Ph.D. (Agri.) degrees in certain other branches.

VI. Veterinary Science

Bachelor of Science (Veterinary).—A candidate for the degree of Bachelor of Science (Vet.) must have passed the Intermediate Science examination of this University with Biology as his optional subject or an examination of another authority or University recognized as equivalent thereto.

Candidates are required to pass four examinations, *viz.*, the First, the Second, and the Third Year Examination in Science (Vet.) and the examination for the degree of Bachelor of Science (Vet.).

(i) *First Year Examination in Science (Veterinary).*—The course of study for this examination extends over a period of one year after passing Inter. Science Examination with Biology.

Candidates are examined in the following subjects :—

- (1) Anatomy.
- (2) Animal Husbandry.
- (3) Physiology including Biochemistry, Histology and Embryology.

(ii) *Second Year Examination in Science (Veterinary).*—The course of study for this examination extends over a period of one year after passing the First Year Science (Vet.) Examination.

Candidates are examined in the following subjects :—

- (1) Anatomy including dissection. Flaying.
- (2) Pharmacy, Pharmacology and Materia Medica.
- (3) Animal Husbandry.
- (4) Shoeing.

(iii) *Third Year Examination in Science (Veterinary).*—The course of study for this examination extends over a period of one year after passing the Second Year Examination in Science (Vet.).

Candidates are examined in the following subjects :—

- (1) Parasitology.

- (2) Medicine including Therapeutics.
- (3) Surgery including Obstetrics.
- (4) Pathology and Bacteriology (including Mycology).

(iv) *Examination for the Degree of Bachelor of Science (Veterinary).*—The course of study for this examination extends over a period of one year after passing the Third Year Examination in Science (Vet.).

Candidates are examined in the following subjects:—

- (1) Medicine—Preventive Medicine.
- (2) Surgery—Surgical diseases, Operative Surgery and Soundness and Dystokia.
- (3) Meat Inspection and Milk Hygiene.

Candidates for all the four examinations must obtain, in order to pass, forty per cent of the maximum number of marks obtainable in each subject, papers and practicals combined, or in practicals where there are no papers. Candidates who obtain sixty per cent of the total on the aggregate of the four years are placed in the First Class. Of the candidates placed in the First Class, those candidates who obtain sixty per cent of the total marks in each of the four years separately are declared to have passed with *distinction*.

VII.—Engineering

Revised Courses of Study for the B.E. (Civil, Mechanical and Electrical) Examinations

A candidate for the degree of Bachelor of Engineering must have passed the Intermediate Examination in Science of this University with Mathematics as his optional subject or the Intermediate Examination in Science of a University recognized by this University in the group of Mathematics, Physics and Chemistry, or the Intermediate Arts Examination with Mathematics as the optional subject and the B.A. Examination with Physics and Chemistry as the optional group.

A candidate are required to pass three examinations the first, to be called the First Examination in Engineering, the second, the Second Examination in Engineering (Civil, Mechanical or Electrical) and the Third, the Examination for the Degree of Bachelor of Engineering Civil, Mechanical or Electrical. The duration of the course is three years.

(i) First Examination in Engineering (Civil, Mechanical and Electrical)

Candidates are examined in the subjects 1 to 9 specified below :—

- 1 CME Mathematics I—Paper I (one paper of 100 marks)
- 2 CME Mathematics I—Paper II (one paper of 100 marks)
- 3 CME Applied Mechanics (one paper of 100 marks)
- 4 CME Machine Drawing (one paper of 100 marks and term work of 50 marks.)
- 5 CME Surveying (one paper of 100 marks and term work of 50 marks and practical examination of 25 marks.)
- 6 CME Electrical Engineering I (one paper of 100 marks)
- 7 CME Heat Engines I (one paper of 100 marks)
- 8 CME Workshop Practice (Practical examination of 100 marks and term work of 50 marks)
- 9 CME Civil Engineering I (one paper of 100 marks and term work of 25 marks.)

(ii) Second Examination in Engineering (Civil)

Candidates are examined in the following subjects in the manner specified below :—

- 10 CME Mathematics II (one paper of 100 marks).
- 11 CME Materials and Structures I (one paper of 100 marks term work 50 marks).
- 12 CME Hydraulics I (one paper of 100 marks).
- 13 CME Heat Engines II (one paper of 100 marks—Term work 25 marks—Practical examination of 50 marks).
- 14 C Design and Drawing (one paper of 100 marks—Term work of 40 marks—oral and sketching 35 marks).
- 15 C Surveying II (one paper of 100 marks—Term work of 25 marks—Practical examination 50 marks).
- 16 CM Electrical-Technology I (one paper of 100 marks).
- 17 CM Electrical-Technology II (one paper of 100 marks—Term work of 25 marks—Practical examination of 75 marks).
- 18 C Workshop Practice (College certificate).
- 19 C Civil Engineering Paper II (one paper of 100 marks).

(iii) **Bachelor of Engineering (Civil)**

Candidates are examined in the following subjects :—

- 20 CME Mathematics III (one paper of 100 marks).
- 21 C Theory of Structures Paper I (one paper of 100 marks).
- 22 C Theory of Structures Paper II (one paper of 100 marks).
- 23 C Structural Design and Drawing (one paper of 100 marks of 4 hours).
- 24 C Hydraulics and Hydraulic Machinery (one paper of 100 marks and term work of 25 marks).
- 25 C Irrigation and Storage (one paper of 75 marks of two hours).
- 26 C Railways, Bridges and Highway Engineering (one paper of 75 marks of two hours).
- 27 C Water-supply and Sanitary Engineering (one paper of 100 marks).
- 28 C Quantity Surveying and Costing (College certificate only).
- 29 C Engineering Geology (one paper of 100 marks and Practical Examination of 50 marks).
- 30 C Design and Drawing (200 marks).
- 31 C Engineering Economics and Works Management (College Certificate only).

(iv) **Second Examination in Engineering Mechanical**

Candidates are examined in the following 8 subjects in the manner specified below :—

- 10 CME Mathematics II (one paper of 100 marks).
- 11 CME Materials and Structures I (one paper of 100 marks, Terms work 50 marks).
- 12 GM Hydraulics I (one paper of 100 marks).
- 13 M Heat Engines II (one paper of 100 marks).
- 14 ME Principles of Machine Design and Drawing (one paper of 100 marks. Term work of 50 marks).
- 15 M Theory of Machines I (one paper of 100 marks).
- 16 GM Electrical Technology I (one paper of 100 marks).
- 17 M Electrical Technology II (one paper of 100 marks, Term work of 25 marks, practical examination of 75 marks).
- 18 ME Mechanical Technology and Practice I (College certificate).

(v) Bachelor of Engineering (Mechanical)

Candidates are examined in the following subjects grouped under Parts I and II in the manner specified below :—

Part I

- 19 ME Mechanical Technology and Practice II (one paper of 100 marks : practical examination of 75 marks ; term work of 75 marks).

Part II

- 20 ME Mathematics III (one paper of 100 marks).
 21 ME Materials and Structures II (one paper of 100 marks).
 22 ME Business Organization and Factory Management (one paper of 100 marks).
 23 M Hydraulics II (one paper of 100 marks ; term work of 25 marks).
 24 M Heat Engines III (one paper of 100 marks).
 25 M Heat Engines IV (one paper of 100 marks, term work of 25 marks, practical examination of 100 marks).
 26 M Metallurgy (one paper of 100 marks ; term work of 25 marks).
 27 M Theory of Machines II (one paper of 100 marks)
 28 M Machine Design (one paper of 100 marks—4 hours' term work of 40 marks, practical examination (oral) 35 marks).

(vi) Second Examination in Engineering (Electrical)

Candidates are examined in the following eight subjects in the manner specified below :—

- 10 MCE Mathematics II (one paper of 100 marks).
 11 MCE Materials and Structures I (one paper of 100 marks, term work of 50 marks).
 12 E Hydraulics I (one paper of 100 marks).
 13 CE Heat Engines II (one paper of 100 marks, term work of 25 marks, Practical examination of 75 marks).
 14 ME Principles of Machine Design and Drawing (one paper of 100 marks, Term work of 50 marks).
 15 E Electrical Engineering I (one paper of 100 marks).

- 16 E Electrical Engineering II (one paper of 100 marks).
 17 E Applied Electronics I (one paper of 100 marks).
 18 ME Mechanical Technology and Practice I (College Certificate).

(vii) **Bachelor of Engineering (Electrical)**

Candidates are examined in the following subjects grouped under Parts I and II in the manner specified below :—

Part I

- 19 ME Mechanical Technology and Practice II (one paper of 100 marks, practical examination of 75 marks, term work of 75 marks).

Part II

- 20 ME Mathematics III (one paper of 100 marks).
 21 ME Materials and Structures II (one paper of 100 marks).
 22 ME Business Organization and Factory Management (one paper of 100 marks).
 23 E Electrical Power I (one paper of 100 marks).
 24 E Electrical Power II (one paper of 100 marks).
 25 E Electrical Measurements (one paper of 100 marks).
 26 E Electrical Engineering III (one paper of 100 marks), term work of 50 marks ; practical examination of 100 marks).
 27 E Applied Electronics II (one paper of 100 marks, term work of 25 marks).
 28 E Principles of Electrical Design (one paper of 100 marks—4 hours, term work of 40 marks, practical examination (oral) 35 marks).

Standard for passing the Examination

F.E. (Civil, Mechanical and Electrical) and S.E. (Civil, Mechanical and Electrical)

To pass the examination a candidate must obtain 40 per cent of the full marks in each subject and 45 per cent of the total marks obtainable. The minimum of 40 per cent for a pass must

be obtained separately in the written examination, term work and practical examination.

Those of the successful candidates who obtain 55 per cent of the total marks obtainable will be placed in the second class.

Those candidates who obtain 66 per cent of the total marks obtainable will be placed in the first class.

B.E. (Civil)

To pass the examination, a candidate must obtain 40 per cent of the full marks in each subject, and 45 per cent of the total marks obtainable. The minimum of 40 per cent must be obtained separately in the written examination, term work and practical examination.

(a) Those of the candidates who obtain 55 per cent or more of the total marks obtainable will be deemed to have passed with Second class Honours.

(b) Candidates who pass with honours and obtain 66 per cent or more marks will be deemed to have obtained First class Honours.

(c) The names of candidates who pass with Honours and are placed in the First Class shall be arranged in order of merit.

For being eligible for a class, a candidate must pass in each part at one sitting or in both parts at one sitting.

B.E. (Mechanical) and B.E. (Electrical)

To pass the examination a candidate must obtain 40 per cent of the full marks in each subject, and 45 per cent of the total marks. The minimum of 40 per cent must be obtained separately in the written examination, term work and practical examination.

(a) Those of the candidates who obtain 55 per cent or more of the total marks obtainable in Parts I and II will be deemed to have passed with Second Class Honours.

(b) Candidates who pass the honours and obtain 66 per cent or more in Parts I and II together will be deemed to have obtained First Class Honours.

(c) The names of Candidates who pass with honours and are placed in the First Class shall be arranged in order of merit.

For being eligible for a class, a candidate must pass in each part at one *sitting* or in both parts at one *sitting*.

Master of Engineering Examination (M.E.).—A candidate who has passed the B.E. examination of this University and has worked for at least three terms under the guidance of a University teacher is admitted to the examination in the Special Branch in which he has taken the B.E. Degree examination (four terms in a branch other than the one in which he has taken the B.E. Degree examination).

A candidate is required to submit the details of the scheme of his work through the recognized teacher under whom he works. The scheme may be modified by the Academic Council in such a manner as it deems fit on the recommendation of the Board of Studies in Engineering and the candidate is examined on such modified scheme.

The Examination can be taken by a written examination and either a practical examination or a dissertation in lieu of the practical examination.

The written examination consists of four papers of not less than three hours' duration.

The practical examination consists of both practical and oral tests extending over a period of not less than 12 hours.

The dissertation may consist of a report of any research work done by the candidate or a comprehensive and critical review of any recent development of the subject or a detailed report of any important design or development work that the candidate has executed on his own responsibility.

Each of the papers carries 100 marks and the practical examination or dissertation carries 400 marks.

Those of the candidates who secure 50 per cent of the total marks obtainable are declared to have passed the examination. Those of the candidates who secure 70 per cent of the total marks obtainable are deemed to have passed with *distinction*.

TEXTILES

IX.—Bachelor of Textiles (B.Text.)

A candidate for the B.Text. degree must have passed the Inter-Science examination of this University with Physics, Chemistry and Mathematics as his subjects or an examination of another University recognised as equivalent thereto. Candidates have to pass four examinations.

During the First Year of which the candidate have to pass the (i) *First Year Examination* held by the Principal of the College in the following subjects.

1. Drawing and Colour	..	One paper of 4 hours	100 marks
2. Chemistry	.. ..	3	100 ..
3. Electro Technics	.. ..	3	100 ..
4. Mechanics	.. ..	3	100 ..

Practicals—

5. Chemistry Laboratory	.. ..	.. 100 ..
6. Electro Technics Laboratory	.. ..	.. 100 ..
7. Machine Drawing	.. ..	.. 100 ..

(ii) *Second Year Examination in Textiles.*—The course of study for this examination extends over a period of one year after the F. Y. Examination in Textiles and candidates are required to study and be examined in :

1. Fabric Structure	..	One paper—4 hours—100 marks.
2. Mathematics and Statistics	..	2 papers each of —3 hours—200 marks.
3. Mechanics of Textile Machinery.	..	One paper—3 hours—100 marks.
4. Spinning	.. ..	Do. do.
5. Weaving	.. ..	Do. do.

Note.—There is no practical examination in Workshop Practice, but 100 marks are allotted for it, and the marks allocated by the Institution for the practical work done by the students in the course of sessional work are added to their total marks.

To pass the examination, a candidate must obtain 40 per cent of the total number of marks obtainable in each subject and

sessional work and 45 per cent in the aggregate of marks assigned for all the subjects and sessional work.

(iii) *Third Year Examination in Textiles.*—The course of study extends over a period of one year after passing the second year examination in Textiles and candidates for the examination are examined in.

1. Textile Technology ..	3 hours	One paper	100 marks.
2. Textile Chemistry ..	3	"	100 "
3. Descriptive Engineering ..	3	"	100 "
4. Physics	3	"	100 "
5. Spinning	3	"	100 "
6. Weaving	3	"	100 "

Practicals—

7. Textile Testing	3	"	100 marks.
8. Dyeing, Sizing and Finishing Laboratory ..	3	"	100 marks.

All candidates for the Third Year Examination in Textiles must obtain, in order to pass, forty per cent of the total number of marks obtainable in each subject, papers and practicals combined, or in practicals where there are no papers and forty-five per cent of the aggregate marks assigned for the papers, practicals and sessional work done at the college during the year.

(iv) *Degree Examination for the Bachelor of Textiles.*—Candidates who have passed the Third Year B. Text. Examination and have subsequently kept two terms for the courses in textiles are examined in the following subjects:—

1. Spinning	3 hours	One paper	100 marks
2. Weaving	3	"	100 "
3. Textile Costing ..	3	"	100 "
4. Textile Mills Planning and Organisation ..	3	"	100 "
5. Economics with special reference to Cotton Industry	3	"	100 "
6. Textile Physics ..	3	"	100 "
7. Spinning or Weaving Special Paper ..	3	"	100 "

All candidates for the Examination for the Degree of Bachelor of Textiles must obtain, in order to pass, forty per cent of the total number of marks obtainable in each subject—papers and prac-

ticals combined, and in the sessional work done at the college during the four sessions and 45 per cent of the aggregate marks for papers, practicals and sessional work.

Classes are awarded to the successful candidates in accordance with the following scheme :—

Candidates obtaining 70 per cent or more of the total marks—Distinction.

Candidates obtaining 60 per cent or more of the total marks—First Class.

Candidates obtaining 50 per cent or more of the total marks—Second Class.

X. CHEMICAL TECHNOLOGY COURSES OF STUDY

The Department of Chemical Technology has been instituted to form a link between science and industry, so that university graduates in pure science, who intend to adopt an industrial career may obtain the necessary technological training to take an important part in industry. As a teaching institution it performs therefore, the dual function of providing an outlet for graduates of the colleges and of supplying the demand for technologists capable of applying their knowledge to practical problems without unduly long apprenticeship in the factory. In the present stage of development of the Indian chemical industry it has been necessary to provide for specialisation in specific branches of chemical technology, as well as training in general and chemical engineering. The courses of study are so organised that instruction in the special subject is based on a firm foundation of chemical and engineering knowledge.

(i) The Degree of B.Sc. (Tech.)

Eight courses of study, Textile Chemistry, Chemical Engineering, Food Technology, Technology of Intermediates and Dyes, Technology of Plastics, Technology of Pigments, Paints and Varnishes, Technology of Oils, Fats and Waxes, and Technology of Pharmaceuticals and Fine Chemicals, each extending over two years, have been organised. Students who pursue one of these courses satisfactorily and pass the prescribed examinations are awarded the degree of B.Sc.(Tech.). As a part of each course, students are required to work for at least two months in an approved factory or laboratory and to submit satisfactory reports to the Director.

The minimum qualification for admission is a B.Sc. of the

University of Bombay in the second class with Chemistry as principal subject, and Physics (for Textile Chemistry, Chemical Engineering, Food Technology, Technology of Intermediates and Dyes, Technology of Plastics, Technology of Pigments, Paints and Varnishes. Technology of Oil, Fats and Waxes) or Botany (for Technology of Pharmaceuticals and Fine Chemicals) as subsidiary subject, or other equivalent qualification. Admissions are made strictly according to merit. Thirtyfour students are admitted for Textile Chemistry, 16 for Chemical Engineering, 10 for Food Technology, 16 for Dyestuff Technology, 8 for Technology of Plastics, 8 for Technology of Pigments, Paints and Varnishes, 16 for Technology of Oils, Fats and Waxes and 12 for Technology of Pharmaceuticals and Fine Chemicals.

In addition to the eight reserved seats for the Technology of Intermediates and Dyes, seats are reserved for graduates of Universities other than those in the State of Bombay as follows: 10 for Textile Chemistry, 3 for Technology of Plastics, 3 for Technology of Pigments, Paints and Varnishes, 5 for Technology of Oils, Fats and Waxes. These 21 seats are allocated to the various States as follows: Bihar (3), Orissa (2), Assam (2), Panjab (2), Hyderabad, Travancore and Cochin (3), Rajasthan and Madhya Bharat (2), Centrally administered areas other than Delhi (2), and Unreserved (5).

The following are the details of the courses of study and subjects of examination for the B.Sc.(Tech.) degree in the different branches. In the following subjects which are other than those covered by the papers, the Head of the Institution holds the examination and certifies that the candidate has satisfied him in those subjects:—

1. Chemical Engineering (Introductory).
2. Industrial Organisation and Industrial Relations.
3. Descriptive Engineering.
4. Fuels.
5. Construction of Works.
6. Costing and Estimating.
7. Colloids.

8. Plant Employed in the Dyestuff Industry (for courses I & II only).
9. Practical Mathematics (except for courses I & VIII).
10. Principles of General Engineering (except for courses I & VIII).
11. Textile Auxiliary Agents (for courses I, IV & VII only).
12. Forensic Pharmacy (for course VIII only).
13. Manufacture of Yarn (for course I only).
14. Design applied to Textile Printing (for courses I & VI only).
15. Physiology, Pharmacology and Toxicology (for course VIII only).
16. Colour Physics (for courses III, IV & VII only).
17. Chemistry of Textile Fibres and Dyeing (for course IV only).

Every candidate for the degree is required to work for at least two months in an approved works where industrial operations relevant to his course of study are carried out and has to submit satisfactory reports to the Head of the Institution.

Each student in Chemical Engineering is required to solve a question on design which is set by the Professors and Readers in Chemical Engineering in the Institution not less than three months prior to the final examination for the B.Sc.(Tech.) and is placed before the examiners at this examination as paper No. 5.

Candidates are examined in the following subjects. Each paper and each day's practical examination carries 100 marks.

I.—Textile Chemistry

Papers

- | | | | | |
|--|----|----|----|---------|
| (1) General Chemical Technology | .. | .. | .. | 1 Paper |
| (2) Chemistry of Textile Fibres and Dyeing | .. | .. | .. | 1 Paper |

- | | |
|---|---------|
| (3) Technology of Dyeing and Printing | 1 Paper |
| (4) Technology of Bleaching, Mercerising and Finishing .. | 1 Paper |
| (5) Chemistry of Intermediates and Dyes | 1 Paper |

Practical and Oral Examination

- | | |
|--|--------|
| (1) Dyestuffs, Intermediates and General Chemical Technology | 3 Days |
| (2) Dyehouse Practice | 3 Days |

II.—Chemical Engineering

Papers

- | | |
|---|---------|
| (1) General Chemical Technology | 1 Paper |
| (2) (a) Materials of Construction | |
| (b) Conveyance and Storage of Materials .. | 1 Paper |
| (3) Production and Transference of Heat | 1 Paper |
| (4) Treatment of Materials | 1 Paper |
| (5) Design of Chemical Plant (Home Paper as per Regulation 237) | 1 Paper |

Practical and Oral Examination

- | | |
|---------------------------------------|--------|
| (1) Drawing | 1 Day |
| (2) General Chemical Technology | 1 Day |
| (3) Chemical Engineering | 4 Days |

Note.—50 per cent of the marks allotted for the examination in Drawing shall be reserved for the drawings executed by the students during their course.

III.—Food Technology

Papers

- | | |
|--|---------|
| (1) General Chemical Technology | 1 Paper |
| (2) Chemical Engineering (course 34 and items II, III and IV of course 37) | |
| (3) Biochemistry and Nutrition and Microbiology .. | 1 Paper |
| (4) Chemistry of Foods | 1 Paper |
| (5) Technology of Foods | 1 Paper |

Practical and Oral Examination

- | | |
|------------------------------|-------|
| (1) Analysis of waters | 1 Day |
|------------------------------|-------|

(2) Analysis of Foods	2 Days
(3) Food Process Laboratory	2 Days
(4) Chemical Engineering	1 Day

IV.—Technology of Intermediates and Dyes

Papers

(1) General Chemical Technology	1 Paper
(2-3) Chemistry of Intermediates and Dyes	2 Papers
(4) Technology of Intermediates and Dyes	1 Paper
(5) Chemical Engineering : (Same as paper 2 for course III)	1 Paper

Practical and Oral Examination

(1) General Chemical Technology	1 Day
(2) Tinctorial Chemistry	3 Days
(3) Experimental Dyeing and Colour Physics	1 Day
(4) Chemical Engineering	1 Day

V.—Technology of Plastics

Papers

(1) General Chemical Technology	1 Paper
(2) Chemical Engineering (same as Paper 2 for course III)	1 Paper
(3) Engineering Technology	1 Paper
(4) Macromolecular Chemistry	1 Paper
(5) Technology of Plastics	1 Paper

Practical and Oral Examination

(1) General Chemical Technology	1 Day
(2) Analysis and Processing of Plastics	3 Days
(3) Chemical Engineering	1 Day
(4) Drawing	1 Day

Note.—50 per cent of the marks allotted for the examination in Drawing shall be reserved for the drawings executed by the students during their course.

VI.—Technology of Pigments, Paints and Varnishes

Papers

(1) General Chemical Technology	1 Paper
---	---------

- | | | |
|---|---------|---------|
| (2) Chemical Engineering (same as Paper 2 for course III) | .. .. . | 1 Paper |
| (3) Technology of Pigments | .. .. . | 1 Paper |
| (4) Technology of Varnishes and Lacquers | .. .. . | 1 Paper |
| (5) Technology of Paints and Printing Inks | .. .. . | 1 Paper |

Practical and Oral Examination

- | | | |
|---|---------|--------|
| (1) General Chemical Technology | .. .. . | 1 Day |
| (2) Analysis and Processing of Pigments, Paints and Varnishes | .. .. . | 4 Days |
| (3) Chemical Engineering | .. .. . | 1 Day |

VII.—Technology of Oils, Fats and Waxes

Papers

- | | | |
|--|---------|---------|
| (1) General Chemical Technology | .. .. . | 1 Paper |
| (2) Chemical Engineering :
(Same as Paper 2 for course III) | | 1 Paper |
| (3) Chemistry of Oils, Fats and Soaps | .. .. . | 1 Paper |
| (4) (a) Treatment of Oleaginous materials | .. .. . | 1 Paper |
| (b) Edible Fat Industry | .. .. . | 1 Paper |
| (5) (a) Fatty Acids, Glycerine and Soaps | .. .. . | 1 Paper |
| (b) Subsidiary Industries | .. .. . | 1 Paper |

Practical and Oral Examination

- | | | |
|--------------------------------------|---------|--------|
| (1) General Chemical Technology | .. .. . | 1 Day |
| (2) Analysis of Oils, Fats and Soaps | .. .. . | 2 Days |
| (3) Oils, Fats and Soaps Processing | .. .. . | 2 Days |
| (4) Chemical Engineering | .. .. . | 1 Day |

VIII.—Technology of Pharmaceuticals and Fine Chemicals

Papers

- | | | |
|---|---------|---------|
| (1) General Chemical Technology | .. .. . | 1 Paper |
| (2) Technology of Pharmaceuticals and Fine Chemicals
Part I—Pharmacy (Galenical and Analytical) | | 1 Paper |
| (3) Technology of Pharmaceuticals and Fine Chemicals
Part II—Plant and process for the manufacture
of fine chemicals with special reference to synthetic
drugs | | — |
| (4) Pharmaceutical Chemistry | .. .. . | 1 Paper |
| (5) Pharmacognosy | .. .. . | 1 Paper |

Practical and Oral Examination

- | | | |
|---|---------|--------|
| (1) Practical Pharmaceutical Chemistry | .. .. | 3 Days |
| (2) Preparation of Pharmaceuticals and Fine Chemicals | 2 Days | |
| (3) Pharmacognosy | .. .. . | 1 Day |

Marks up to a maximum of 100 are assigned by the examiners for the work done in the Institution on the strength of the report of the Head in consultation With a member or members of the staff under whom the candidate has carried out the work and on the inspection of the candidate's journals which have to be produced at the time of the examination.

To pass the examination, a candidate must obtain at least 40 per cent of the marks in each paper, at least 40 per cent of the marks in each practical examination, and at least 40 per cent of the marks assigned for the work done in the Institution, and in addition, he must obtain at least 50 per cent of the total number of marks assigned to the whole examination.

Successful candidates are awarded classes as under—

Those obtaining 50 per cent and above but below 60 per cent of the total marks	Second class.
Those obtaining 60 per cent and above but below 70 per cent of the total marks	First class.
Those obtaining 70 per cent and above	Distinction.

(ii) Master of Science (Technology)

The M.Sc.(Tech.) degree can be taken by thesis only.

The degree of M.Sc.(Tech.) may be awarded to a candidate who has passed the examination for the B.Sc. (Tech.) and who has subsequently carried out research in the University Department of Chemical Technology under the guidance of a University Teacher for at least two terms on the merits of a thesis dealing with a subject relating to (1) Textile Chemistry, (2) Chemical Engineering, (3) Food Technology, (4) Technology of Intermediates and Dyes, (5) Technology of Plastics, (6) Technology of Pigments, Paints and Varnishes, (7) Technology of Oils, Fats and Waxes, or (8) Technology of Pharmaceuticals and Fine Chemicals.

The degree of M.Sc.(Tech.) may be conferred on a candidate who has passed the examination for the degree of B.Sc.(Tech.) at least two years previously, provided that he has been satisfactorily and continuously engaged in industry during that period and presents, under the guidance of a University Teacher, a thesis embodying the results of the work on which he has been engaged and which, in the opinion of the referee, is a contribution of value to industry and on which he satisfactorily undergoes a *viva voce* examination by an external examiner in conjunction with the Teacher under whom he has been receiving guidance.

(iii) **The degree of B.Chem. Eng.**

Four year course in Chemical Engineering

Under the Government of India scheme of expansion of the Department, a four-year course in Chemical Engineering leading to the degree of Bachelor of Chemical Engineering (B.Chem. Eng.) has been instituted. The qualification for admission is the Intermediate examination in Science of the University of Bombay with Mathematics as the optional subject or the Intermediate examination in Science of a University recognized by the University of Bombay in the group of Mathematics, Physics and Chemistry. The number of candidates to be admitted to the first year of the course is 20, and 6 seats are reserved for candidates from States other than the State of Bombay as follows: Madhya Bharat (1), Rajasthan (1) Saurashtra (1), Centrally administered areas (2) and Unreserved (1).

The following are the details of the courses of study and subjects of the examination for the B.Chem. Eng. degree.

A candidate is required to pass four examinations, *viz.*, the First, Second and Third Year examinations in Chemical Engineering and the final examination for the degree of Bachelor of Chemical Engineering. The course of study for each of these examinations is of one year's duration.

• Every candidate for the degree is required to work for at least one month in a machine shop during the vacation at the end of the second year of study, and for another two months in a chemical factory or works at the end of the third year of study, and shall submit satisfactory reports of such work to the Head of the Institution.

Every candidate is required to solve a question on design

which shall be set by the Professors and Readers in Chemical Engineering in the Institution not less than three months prior to the final examination for the degree of B.Chem. Eng., at which it shall be considered under the subject heading "Home Paper". For this subject head, no marks are allotted separately for class work.

The following are the details for the different Examinations :

First Year Examination in Chemical Engineering

	No. of Papers or Practicals	Final Exam. Hrs.	Total of Periodic Tests Hrs.	Marks
English	1	2	—	50
Physics	1	3	3	100
Applied Mechanics ..	1	3	3	100
Physics Laboratory ..	1	3	6	100
Mathematics I	2	6	6	200
Total marks				550

Second Year Examination in Chemical Engineering

	No. of Papers or Practicals	Final Exam. Hrs.	Total of Periodic Tests Hrs.	Marks
Chemistry, Inorganic ..	1	3	3	100
Chemistry, Organic ..	1	3	3	100
Chemistry, Physical ..	1	3	3	100
Mathematics II ..	1	3	3	100
Strength of Material ..	1	3	3	100
Drawing I & II	1	3	3	100
Total marks				600
Mechanical Technology and Practice (Paper) ...	1	2	1	50
Mechanical Technology and Practice (Practical)	1	4	...	100
Chemistry Laboratory, Inorganic	1	6	6	100
Chemistry Laboratory, Organic	1	6	6	100
Chemistry Laboratory, Physical	1	6	6	100
Total marks				450

*Cumulative passing.

Third Year Examination in Chemical Engineering

	No. of Papers or Practicals	Final Exam. Hrs.	Total of Periodic Tests Hrs.	Marks
Industrial Stochiometry	1	3	3	100
Advanced Physical Chemistry.	1	3	3	100
Chemical Engineering I	1	6	6	200
Chemical Engineering II	1	6	6	200
Heat Engines ...	1	3	3	100
General Engineering and Theory of Machines ...	1	3	3	100
Electrical Engineering	1	3	3	100
Elements of Economics ...				
Chemical Engineering	1	2	2	50
Laboratory ...	1	6	6	100
Technical Analysis (in- cluding Fuels) ...	1	6	6	100
Engineering Lab. (Mecha- nical and Electrical) ..	1	3	3	100
Total marks ..				1,050

**Bachelor of Chemical Engineering (B.Chem. Eng.)
Examination**

	No. of Papers or Practicals	Final Exam. Hrs.	Total of Periodic Tests Hrs.	Marks
Equipment Design				
Drawing ..	1	3	3	100
Chemical Engineering				
Thermodynamics ..	1	3	3	100
General Chemical Technology ..	1	3	3	100
Chemical Engineering				
Advanced I ..	1	3	3	100
Chemical Engineering				
Advanced II ..	1	3	3	100
Furnaces, Refractories and Physical Metallurgy	1	3	3	100
Total marks ..				500

	No. of Papers or Practicals	Final Exam. Hrs.	Total of Periodic Tests Hrs.	Marks.
Costing and Industrial Administration and Re- lations	1	3	3	100
Unit Operations Labora- tory	1	6	6	100
Practice School or Group Problems .. .. .	..	..	6	100
Home Paper (Thesis) ..	..	..	..	100
Total marks ..				400

N.B.—Certified journals containing records of practical work carried out by the candidates shall be submitted to the examiners, at the respective practical examination at each of the examinations.

Standard of Passing

To pass the First, Second or Third Year examination in Chemical Engineering or the final examination for the degree of B.Caem. Eng., a candidate must obtain at least 40 per cent of the marks in each paper, at least 40 per cent of the marks in each practical examination, and in addition he must obtain at least 50 per cent of the total number of marks assigned to the whole examination. At the final examination for the degree of B.Chem. Eng., a candidate must also obtain at least 40 per cent of the total marks assigned for the subject "Practice School or Group Problem".

Successful candidates at the Second and Third Year Examinations in Chemical Engineering and the final examination for the degree of B. Chem. Eng., shall be awarded classes as follows:—

Those obtaining 50 per cent and above but below 60 per cent of the total marks	Second class
Those obtaining 60 per cent and above but below 70 per cent of the total marks	First class
Those obtaining 70 per cent of the total marks and above	Distinction.

Facilities for Research in the University, Department of Chemical Technology

Students proceeding for the higher degrees of M.Sc. (Tech.) and Ph.D. in the Faculty of Technology are afforded facilities for carrying out research under the direction of the members of the staff in the various laboratories of the Department. Other qualified persons, intending to carry out research work within the purview of the Department, whether proceeding for a degree or not, are also admitted if accommodation is available (see p. 16).

The Department is fully equipped for chemical and technological research. A research laboratory for general work, an experimental dyeing laboratory, a textile auxiliaries laboratory, a dyehouse carrying a complete range of semi-scale plant for all purposes from singeing to finishing and an optics laboratory are available, in which any problem in the chemical technology of textiles can be investigated. The Pharmaceutical, Food, Dyes and Fuel laboratories provide facilities and accommodation for several workers in the subjects. The Chemical Engineering laboratories, which include a room for high pressure research and contain unit plant of every type, offer opportunities for carrying out semi-scale work on chemical products and works processes. Laboratories for "Oils, Fats and Waxes" and "Plastics" and "Pigments, Paints and Varnishes" have been equipped. Special apparatus and small scale plant can be fabricated in the workshop. The departmental library possesses a comprehensive collection of books and periodical literature in English and German on the various branches of Chemistry and Chemical Technology and receives over 160 current periodicals.

Copies of the publications of the Department are made available to subscribers for an annual payment of Rs. 10.

Industrial investigations and analytical Work.—While the primary function of the Department is to impart advanced training and provide facilities for research in chemical technology to graduates in chemistry in order to equip them to occupy responsible positions in industry, it also acts as a central research and analytical laboratory for the benefit of the textile and chemical industries and it co-operates with mills and factories in carrying out industrial research on their behalf or investigating any technical problems that may arise in the course of their work. In the equipment of the Department this object has been kept in view and unit plant installed so that semi-work scale experi-

ments may be carried out on problems relating to textile processing and to the manufacture and application of chemical products.

While routine chemical analyses of every kind are undertaken on behalf of industry in general, the Department functions in particular as a test house for cotton mills, enabling them to obtain independent information on the dyes, chemicals and auxiliaries used in the textile industry. Regulations governing the acceptance of such work and a schedule of charges may be obtained from the office of the Department.

Scholarships and Fellowships in the University Department of Chemical Technology

A scholarship of Rs. 30 per month is awarded annually to an entrant to each of the B.Sc.(Tech.) courses. These scholarships are tenable for one year and are awarded to the candidates entering the respective courses, who have obtained the highest total marks at the B.Sc. Examination of the Bombay University in that year.

Scholarships of Rs. 30 per month each and tenable for one year are also awarded annually on the results of the first year's work to the students who have obtained the highest number of marks in the respective courses and who in addition have not failed in any of the departmental examinations.

A scholarship of Rs. 30 per month, tenable for one year, is awarded annually to a student of the First War Chemical Engineering Course for B.Chem.Eng. who has obtained the highest total marks at the Intermediate Science Examination of the Bombay University in that year. Students who pass the Inter-Science with exemption in the language examination under R. 89 will not be eligible.

Scholarships of Rs. 30 per month each and tenable for one year, are also awarded annually to the students who obtain the highest number of marks at the First, Second and Third Year Examinations in Chemical Engineering, and continue their studies in the Department.

Singhane Fellowships.—There are ten Singhane Research Fellowships of Rs. 100 each per month tenable for one year. Five are awarded to first year research students in order of marks secured in the B.Sc. (Tech.) Examination, equitable distribution

secured in the B.Sc. (Tech.) Examination, equitable distribution among the various branches of chemical technology being made as far as possible. The remaining five Fellowships are awarded to students who have shown satisfactory progress in their first year's research work, and who wish to continue research in the Department for a second year. If there are no qualified applicants for one or more of the above Fellowships, such Fellowships may be made available to other graduates of the Department with the requisite qualifications.

The Byramji Ratanji Lentin Scholarship, of the value of Rs. 388 per annum and tenable for one year, is awarded to the candidate who passes the B.Sc.(Tech.) examination with the highest number of marks in the Textile Chemistry branch and continues his studies for the M.Sc.(Tech.) Examination.

The Amelia' wife of Dr. A. G. Viegas, Scholarship, of the value of Rs. 166 per annum and tenable for one year, is awarded to the candidate who passes the B.Sc.(Tech.) Examination with the highest number of marks in the Chemical Engineering branch and continues his studies for the M. Sc.(Tech.) Examination.

The Seth Rao Bahadur Poonamchand Karamchand Kotawala old Medal, of the approximate value of Rs. 340 is awarded annually to the candidate who passes the B.Sc.(Tech.) Examination with Plastics, Paints and Varnishes as his special subject and obtains the highest number of marks in the aggregate in his group.

The Chaturbhuj Jiandas Research Fellowship, of the value of Rs. 1,500 per annum tenable for one year in the first instance and renewable at the discretion of the Syndicate, is awarded to the most deserving candidate who has passed the M.Sc.(Tech.) Examination of the University in the twelve months preceding the 1st December of the year of award, and who continues to work in the Department on an approved problem.

The Bombay Millowners' Association Research Assistantship Textile Chemistry, in the grade of Rs. 200—20—300 p.m. to be held by a graduate of the Department holding the Ph.D. degree :—

The C.S.I.R. Fellowships in Dyestuff Technology: Six research fellowships of the value of Rs. 100 each per month, tenable for one year, are awarded to B.Sc.(Tech.) graduates for research in Dyestuff Technology.

Research Fellowships under the Government of India scheme of expansion : Eight research fellowships of the value of Rs. 100 each per month, tenable for one year, are awarded to B.Sc.(Tech.) graduates for carrying out research :

The Raja Rtna Kapilram H. Vakil Memorial Scholarship, of the value of the annual income of the endowment of Rs. 12,075/-tenable for one year is awarded annually by the Syndicate to the best qualified graduate of the University of Bombay in Chemical Engineering during the year who undertakes research in (1) salt or (2) salt and allied chemicals or failing such a candidate to the candidate who undertakes research Chemical Engineering in the Department.

Ten Senior research Scholarships each of the value of Rs. 200 per month for advanced research in Technology and seven Junior research Scholarships each of the value of Rs. 100 per month for postgraduate research in Technology awarded by the Government of India, Ministry of Education, tenable for a period of three years are available in the Department.

Subsidised Research Fellowships.—Several Fellowships for work on specified industrial problems subsidised by Government and industry are usually available every year.

XI—Architecture

Bachelor of Architecture (B.Arch.) :—

A candidate for the degree of Bachelor of Architecture must have passed the Matriculation or the Entrance Examination of this University, or the S.S.C. Examination of the S.S.C. Examination Board of the Bombay State with the prescribed subjects and the prescribed percentages of marks or an examination recognised as equivalent to the Matriculation and, in addition must have studied Drawing up to the standard prescribed for the Intermediate Examination in Drawing held by the Government of Bombay.

The course is of five years' duration and a candidate has to pass five examinations—three college examinations and two University examinations as follows. The course for each examination is of one year's duration.

(i) First Year Examination in Architecture

This Examination will be held by a College of Architecture recognized by the University of Bombay.

1. Mathematics I.
2. Science I.
3. Design I.
4. History of Culture I.
5. Drawing I.
6. English.
7. Building Construction and Materials I.
8. Workshop Practice I (*Certificate only*).

To pass the Examination the candidate must obtain 45 per cent of the full marks in each subject and 50 per cent of the total marks obtainable.

(ii) Second Year Examination in Architecture

This Examination will be held by a College of Architecture recognized by the University of Bombay.

Candidates will be examined by the College in subjects 1 to 8 specified below, and each candidate must produce a certificate from the Head of the College of Architecture showing that he has satisfactorily completed the course prescribed for subject 9 (Workshop Practice II) in which there is no examination.

1. Mathematics II.
2. Applied Mechanics.
3. Design II.
4. History of Culture II.
5. Drawing II.
6. History of Architecture I.
7. Building Construction and Materials II.
8. Surveying.
9. Workshop Practice II. (*Certificate only*).

To pass the Examination the Candidate must obtain 45 per cent of the full marks in each subject and 50 per cent of the total marks obtainable.

(iii) Intermediate Examination in Architecture

The Intermediate Examination in Architecture will be held by the University.

Candidates will be examined by the University in the subjects 1 to 7 specified below. Each candidate must produce a certificate from the Head of the College of Architecture showing that he has satisfactorily completed the course prescribed for subject 8 (Workshop Practice III) in which there is no examination.

1. History of Culture III—1 paper of 100 marks—3 hours' duration.
2. History of Architecture II—1 paper of 100 marks—3 hours' duration.
3. Design III—1 paper of 300 marks—3 days' duration, 6 hours' a day (*First 6 hours enlodge*).
4. Construction—1 paper of 100 marks—3 hours' duration.
5. Theory of Structures—1 paper of 100 marks—3 hours' duration.
6. Materials and Specifications—1 paper of 100 marks—3 hours' duration.
7. Elementary Sanitation—1 paper of 100 marks—3 hours' duration.
8. Workshop Practice III—(*College Certificate only*).

To pass the Examination the candidate must obtain 45 per cent of the full marks in each subject and 50 per cent of the total marks obtainable.

Those of the candidates who obtain 55 per cent of the total marks obtainable shall be placed in the Second Class.

Those of the candidates who obtain 66 per cent of the total marks obtainable shall be placed in the First Class.

(iv) **Fourth Year Examination in Architecture**

This examination will be held by a College of Architecture recognized by the University of Bombay.

Candidates will be examined by the College in the subjects :
1 to 6 specified below.

1. Town Planning and Civic Architectuere I.
2. Architectural Accoustics.
3. Advanced Building Construction I.
4. Advanced Structural Design I.
5. Quantity Serveying.
6. Design IV.

To pass the Examination the candidate must obtain 45 per cent of the full marks in each subject and 50 per cent of the total marks obtainable.

(v) **Bachelor of Architecture**

This Examination will be held by the University.

Candidates will be examined by the University in the subjects 1 to 8 below.

1. Design V—1 paper of 300 marks—4 days, duration 6 hours a day. (*First 6 hours' enrolage*).
2. Advanced Building Construction II—1 paper of 100 marks—3 hours' duration.
3. Advanced Structural Design II—1 paper of 100 marks—3 hours' duration.
4. Malinaband Specification—1 paper of 100 marks—3 hours' duration.
5. Services and Equipment—1 paper of 100 marks—3 hours' duration.
6. Town Planning and Civic Architecture II—1 paper of 100 marks—3 hours' duration.
7. Sociology and Building Economics—1 paper of 100 marks—3 hours' duration.
8. Professional Practice—1 paper of 100 marks—3 hours' duration.
9. Thesis—100 marks.

To pass the examination the candidate must obtain 45 per cent of the full marks in each subject and 50 per cent of the total marks obtainable.

Those of the candidates who obtain 55 per cent of the total marks obtainable shall be placed in the second class.

XII.—Law Course

*Revised courses of study for the degree of Bachelor of Laws
(New Rules)*

Candidates for the degree of LL.B. must have passed the Intermediate Arts or the Intermediate Commerce Examination of this University or the Intermediate Arts or Intermediate Commerce Examination of any other University or Board of Intermediate Education recognized as equivalent to the corres-

pending examination of this University and will be required to pass three examinations, the first to be called "Law Preliminary Examination" the second to be called the "1st Examination for the Degree of LL.B." and the third to be called the "2nd Examination for the Degree of LL.B."

Candidate who have passed the Bachelor's Degree examination of this University in the Faculties of Arts Commerce or of any other University recognized as equivalent thereto will not be required to pass the Law Preliminary Examination, and will be entitled to enter upon the course for the 1st Examination for the Degree of LL.B.

Candidates who have passed the Bachelor's Degree examination of this University in Science, Agriculture, Medicine or Engineering or in any other Faculty except Arts or Commerce of any other University recognized as equivalent thereto, will be eligible for admission to the Law course but will be required to pass the Law Preliminary Examination as mentioned in 0.325A.

(i) **Law Preliminary Examination Course**

Candidates are required to answer the following five papers each carrying 100 marks and of three hours' duration :

- Paper I—English Texts—Prose and Poetry.
- Paper II—English—Essay Precis and Composition.
- Paper III—Outlines of Social, Economic and Constitutional History of India from 1773 to the 26th January, 1950.
- Paper IV—History and Development of Social Institutions.
- Paper V—Theory of Politics.

To pass the examination the candidate must obtain one-third of the full marks in each paper. Those obtaining 45 per cent or more in the aggregate are declared to have passed the examination in the Second Class. Those obtaining 60 per cent or more in the aggregate are declared to have passed the Examination in the First Class.

(ii) **First LL.B. Examination Course**

Candidates are required to answer the following six papers, each carrying 100 marks and of three hours' duration :—

- Paper I—Law of Crimes with special reference to the Indian Penal Code.

Paper II—The Law of Torts.

Paper III—Principles of the Law of Contract with special reference to the first 75 Sections Contract Act.

Paper IV—The Principles of the Law of Indemnity, Bailments, Surety, Agency, Sale of Goods, Partnership and Negotiable Instruments.

Paper V—Elements of Constitutional Law.

Paper VI—Indian Constitution.

To pass the examination the candidate must (a) obtain one-third of the full marks in each paper, and (b) obtain one-half of the total marks obtainable. Those of the successful candidates who obtain two-thirds or more of the total marks obtainable are placed in the First class.

(iii) **Second LL.B. Examination Course**

No candidate is admitted to the examination unless he has passed the First Examination for the Degree of LL.B. in this University and after passing the said examination has kept two terms in a Law College affiliated to this University.

Candidates are require to answer the following six papers, each carryng 100 marks and of three hours' duration.

Paper I—Hindu Law.

Paper II—Mohammedan Law and the Indian Succession Act.

Paper III—Law of Property, Easements and Registration Act.

Paper IV—Equity, Trust and Specific Relief.

Paper V—Elements of Public International Law and Jurisprudence.

Paper VI—Private International Law (Conflict of Laws).

To pass the examination the candidate must (a) obtain one-third of the full marks in each paper and (b) obtain one half of the total marks obtainable. Those of the successful candidates who obtain two-thirds or more of the total marks obtainable are placed in the First Class.

(iv) *Master of Laws (LL.M.)*.—Admission to the courses of study for this Degree is granted to Law Graduates of this or of certain other recognised Universities and the course extends over two academic years. Every candidate for the Degree of LL.M. is required (1) to register himself as a post-graduate student of the

University, (2) to get himself enrolled as a regular student of a Law College affiliated to the University and (3) to report himself daily to the Principal of the College. Candidates are required to study and be examined in any *one* of the following four branches:

- Branch I* ... (1) Jurisprudence (1 paper), (2) Roman Law (1 paper), (3) International Law, Public and Private (1 paper), (4) Principles of Legislation (1 paper), (5) Constitutional Law (British and Indian) (1 paper), and (6) Essay (1 paper).
- Branch II* ... (1) Hindu Law (3 papers) *or* Muhammadan Law (3 papers), (2) Testamentary and Intestate Succession (excluding Hindu and Muhammadan Law) (1 paper), (3) Marriage, Divorce and Guardianship (excluding Hindu and Muhammadan Law) (1 paper), and (4) Essay on Hindu or Muhammadan Law (1 paper).
- Branch III* ... (1) Real property, etc., (2 papers), (2) Principles of Equity with special reference to the Law of Trusts and Specific Relief (1 paper), (3) The Law of Easements and Prescription (1 paper), (4) Customary and Statute Law relating to Land Tenure in British India (1 paper), and (5) Essay (1 paper).
- Branch IV* ... (1) The Law of Contracts (including Sale of Goods Agency and Partnership) (1 paper), (2) Companies and Insolvency (1 paper), (3) Mercantile and Maritime Law (1 paper), (4) The Law of Torts (1 paper), (5) Law of Crimes (1 paper), and (6) Essay (1 paper).

The Degree of LL.M. may be taken either by written examination or by thesis.

The examination in each branch consists of six papers. To pass the examination, candidates must obtain 50 per cent in each of the papers. Those who obtain 66 per cent of the aggregate are placed in the First Class.

XIII—Medicine

(i) *Degrees of Bachelors of Medicine and Bachelor of Surgery (M.B., B.S.), (old course).*—For admission to a course of study for these Degrees, a candidate was required to have passed the Intermediate Examination in Science of this University in the group of Physics, Chemistry and Biology or an equivalent examination of any other recognized University. Candidates for these degrees are required to pass three examinations:—(i) The First M.B., B.S. Examination, (ii) The Second M.B., B.S. Examination, and (iii) The Third M.B., B.S. Examination.

(a) *The First M.B., B.S. Examination.*—Before presenting themselves for this examination, candidates must have attended complete courses in (i) Human Anatomy and Embryology, (ii) Physiology, (iii) Organic Chemistry and Bio-Physics. They are examined in Anatomy including Embryology, Descriptive and Practical, and Physiology including Histology and Chemical and Experimental Physiology and in Organic Chemistry and Bio-Physics. The examination consists of two written papers and a Practical Examination or an oral test or both in each subject. For a pass, a candidate must obtain in each subject, 50 per cent of the full marks in the clinical, practical and oral tests together and 50 per cent the full marks in the written test.

(b) *The Second M.B., B.S. Examination.*—Candidates are examined in the following subjects: Materia Medica, Pharmacology and Practical Pharmacy. The examination consists of one written paper and one practical or oral examination in each subject. The passing standard is the same as at the First M.B., B.S. Examination.

(c) *The Third M.B., B.S. Examination.*—Before presenting himself for this examination, each candidate must have attended the course in Medicine, Surgery, Midwifery and Diseases of Women, Ophthalmology, Pathology, Forensic Medicine and Preventive Medicine. He must also have received systematic and clinical instruction in Diseases of the Ear, Nose and Throat, Disease of the Skin, Radiology, Dentistry, Tuberculosis, Venereal Diseases and Anaesthetic. He must further have attended the prescribed Hospital Practice.

The subjects in which the candidates are examined are as under:—

(1) *Pathology and Bacteriology*—

The examination in Pathology consists of:—

(a) One paper of three hours' duration, carrying 100 marks.

- (b) A practical examination, carrying 50 marks ;
- (c) An oral examination, carrying 50 marks.

(2) *Forensic Medicine*—

The examination in Forensic Medicine consists of:—

- (a) a paper of three hours' duration carrying 100 marks ;
- (b) an oral examination carrying 100 marks.

(2A) *Preventive Medicine*—

The examination in Preventive Medicine consists of:—

- (a) a paper of three hours' duration carrying 100 marks.
- (b) an oral examination carrying 100 marks.

(3) *Medicine*—

The examination in Medicine consists of:—

- (a) Two paper each of three hours' duration, carrying 100 marks each.
- (b) A clinical examination in Medicine carrying 100 marks consisting of the following:—

- (i) An examination of a patient and a written report thereon.

- (ii) A short examination on not less than two cases.

- (c) A practical and oral examination, carrying 100 marks.

(4) *Surgery*—

The examination in Surgery consists of:—

- (a) Two papers, each of three hours' duration, carrying 100 marks each.

- (b) A clinical examination, carrying 100 marks consisting of:—

- (i) An examination of a patient and a written report thereon, and

- (ii) A short examination on not less than two cases.

- (c) A practical and oral examination bearing on Surgical Anatomy, Pathology, use of surgical appliances and operations on the cadaver, carrying 100 marks.

(5) *Ophthalmology*—

The examination in Ophthalmology consists of:—

- (a) A paper of three hours' duration, carrying 100 marks.

- (b) A clinical and oral examination, carrying 100 marks.

(6) *Midwifery and Gynaecology*—

The examination in Midwifery and Gynaecology consists of:—

- (a) A paper of three hours' duration, carrying 100 marks.
- (b) A clinical examination, carrying 50 marks.
- (c) A practical and oral examination, carrying 50 marks.

For a pass, a candidate must obtain 50 per cent of the full marks in the clinical, practical and oral tests taken together and 50 per cent of the full marks in the written test.*

(ii) **Degrees of Bachelor of Medicine and Bachelor of Surgery**

(*New Rules*)

For admission to the courses of study for these degrees candidates must have passed the Intermediate Examination in Science of this University with the subjects Physics, Chemistry and Biology or an examination recognised by the University as equivalent thereto, and must have attained the age of 17 years on or before the 10th November, of the year in which they join the college, or on the day of the commencement of the second term, whichever is later. Candidates will be required to undergo a period of certified study extending over four and a half academic years. After a period of study extending over one and a half academic years, in the subjects prescribed for the First M.B., B.S. Examination, the candidate will be entitled to appear for the First M.B., B.S. Examination. After passing the First M.B., B.S. Examination, candidates will be required to spend three years in a continuous study of the clinical group of subjects and pass the Second M.B., B.S. Examination before being entitled to appear in the subjects for the Third M.B., B.S. Examination. After passing the Final M.B., B.S. Examination, candidates shall, in order to qualify for the M.B., B.S. Degrees, undergo as interns 12 months' post-examination training in a recognised institution under a medical officer or practitioner recognized by the University or the Medical Council of India for the purpose. Three months at least of this internship shall be in Public Health Work, preferably in the rural areas under an approved Medical officer of Health. (The details regarding internship training are still under the consideration of the University authorities).

*The First Second and Third M.B., B.S. Examination under the Old Rules will be held for the last time in October, 1955, April 1959 and April 1961 respectively.

(a) **First M.B., B.S.**

Before presenting themselves for this examination candidates must have completed the following courses to the satisfaction of the Heads of Medical Colleges.

Candidates before presenting themselves for the First Examination shall produce certificates of:—

(i) *Human Anatomy and Embryology*:—

(a) A course of demonstrations on Human Anatomy including Histology, Elements of Human Embryology and Principles of Genetics *with a stress on the fundamental and basic principles of Anatomy with a view to making this study useful for the later study of clinical subjects*, extending over three academic terms.

(b) A course of dissections extending over three academic terms. The candidates must have dissected the whole human body to the satisfaction of their teachers.

(c) A practical course in Histology of the tissues of the human body and the principles of Histological technique excluding Microtome work extending over a period of three academic terms.

(ii) *Human Physiology*:—

(a) A course of lectures and demonstrations on Physiology, including Bio-Chemistry and Bio-Physics, extending over three academic terms.

(b) A practical course in Experimental-Physiology, Bio-Chemistry and Bio-Physics, extending over three academic terms.

(iii) *Normal Psychology*:—

A course of instruction in Elementary Normal Psychology.

(iv) *The normal reactions of the body to injury and infection as an introduction to General Pathology and Bacteriology.*

(v) *Elements of the methods of clinical examination, including the use of the common instruments and the examination of body fluids, with demonstrations on both normal and abnormal living subjects.*

The Examination will consist of—

(i) Human Anatomy (including Histology), Elements of Human Embryology and Principles of Genetics.

(a) Two written papers, each of three hours' duration, carrying 100 marks each.

(b) A practical and an oral test carrying 200 marks.

(ii) Human Physiology (including Experimental Physiology), Bio-Chemistry and Bio-Physics.

(a) Two written papers each of three hours' duration, carrying 100 marks each.

N.B.—Each paper shall be divided into two equal Sections. One of the four sections shall be devoted to Bio-Chemistry and Bio-Physics.

(b) A practical and an oral test carrying 200 marks.

(b) **Second M.B., B.S.**

Before presenting themselves for this examination candidates must have completed the following courses to the satisfaction of the Head of a medical college.

(i) Pharmacology, including Pharmaco-therapeutics.

A course of lectures and demonstrations, extending over two terms.

Practical Pharmacy—

A course of demonstrations and practical work extending over one term.

(ii) *Pathology and Bacteriology*—

(a) A course of lectures, demonstrations and practical work in Pathology, extending over two terms.

(b) A course of lectures, demonstrations and practical work in Bacteriology and Elementary Parasitology, extending over two terms.

(c) A course of instruction in Chemical Pathology and in Clinical Pathology and Bacteriology.

(d) A certificate of having assisted in the conduct of at least ten autopsies as a *post mortem* clerk.

Candidates will be required to submit to the examiners full records of ten autopsies which they have attended and which have been certified by the teachers in that subject.

(iii) *In Forensic Medicine and Toxicology—*

(a) A course of instruction in Forensic Medicine and Toxicology, including demonstrations, extending over one term.

(b) Candidates will be required to produce a certificate of having attended six medico-legal autopsies.

The examination will consist of—

(i) *Pharmacology, including Pharmaco-therapeutics—*

(a) A written paper of three hours' duration, carrying 100 marks.

(b) A practical examination in Pharmacy as well as a practical and oral tests or both in Pharmacology, carrying 100 marks.

(ii) *Pathology and Bacteriology—*

(a) One paper of three hours' duration, carrying 100 marks.

(b) Practical examination carrying 60 marks.

(c) An oral examination carrying 40 marks.

(iii) *Forensic Medicine and Toxicology—*

(a) One paper of three hours' duration, carrying 100 marks.

*(b) An oral examination carrying 100 marks.

(c) **Third M.B., B.S.**

Before presenting themselves for this examination candidates must have completed the following courses to the satisfaction of the Head of a medical college.

(i) In Medicine, including Preventive and Social Medicine and Therapeutics.

A course of lectures and clinical demonstrations as laid down in R. 334P, extending over four academic terms.

(ii) In Surgery, including E. N. & T. and Ophthalmology and Applied Pathology.

A course of lectures and clinical demonstrations in Surgery, as laid down in R. 334P, extending over four academic terms.

(iii) In Midwifery and Gynaecology including Applied Pathology.

A course of lectures and clinical demonstration, as laid down in R. 334P, extending over two academic terms.

The Candidates shall also present certificates of having passed the college tests in (i) Ear, Nose and Throat and (ii) Ophthalmology referred in R. 334P.

The Examination will consist of—

1. *Medicine, including Preventive and Social Medicine and Therapeutics and Applied Pathology—*

(a) Two papers, each of 3 hours' duration, carrying 100 marks each of which one section carrying 50 marks shall be devoted to Preventive and Social Medicine.

(b) A clinical examination in Medicine carrying 100 marks, consisting of the following:

(i) Long case :—*Viva voce* examination on the findings of a case.

(ii) A short examination on not less than two short cases. *Viva voce* on the findings of each case.

(c) A practical and oral examination carrying 100 marks which will also include Preventive and Social Medicine.

2. *Surgery, including E. N. & T. and Ophthalmology and Applied Pathology—*

(a) Written Examination—2 papers, each of three hours' duration and carrying 100 marks each.

Note.—In Paper I there shall be a compulsory question on Ophthalmology with an alternative and in Paper II, there shall be one question on E. N. & T. with an alternative.

(b) A clinical examination in Surgery, etc., carrying 100 marks, consisting of the following :—

- (i) *Long case*:—*Viva voce* examination on the finding of a case.
- (ii) A short examination on not less than two short cases. *Viva voce* on the findings of each case.

(c) A practical and oral examination bearing on Surgical Anatomy, Pathology, use of surgical appliances and operations, carrying 100 marks.

3. *Midwifery, Gynaecology and Applied Pathology*—

- (a) A paper of three hours' duration, carrying 100 marks.
- (b) A clinical examination carrying 50 marks.
- (c) A practical and oral examination carrying 50 marks.

N.B.—1. In the written paper 40 marks should be allotted to Gynaecology and 60 marks to Midwifery, Hygiene of Infants and diseases of the new born.

- 2. In the examination of Gynaecology—in written as well as practical and oral—details of major operational technics should not be asked).

To pass each of the above examination, a candidate must obtain in each subject 50 per cent of the full marks in the clinical, practical and oral tests taken together and 50 per cent of the full marks in the written test. In order to obtain distinction in any subject a candidate must pass the examination at the first attempt in all the subjects, and obtain 75 per cent of the full marks in the subject.

Up to and inclusive of the academic year commencing from June 1956, holders of the L.C.P.S., or L.M.P. diploma of the State of Bombay or of Sind before partition and holders of corresponding diplomas of others States or the D.M.S. diploma of the State of Madras will be permitted to enter upon the condensed course for the M.B., B.S. degrees and appear for the First, Second and Third M.B., B.S. examinations one after another, on their producing a certificate that they have pursued at an affiliated college to the satisfaction of its head courses specially organized thereat for such students, provided always that such students shall have passed the Matriculation Examination or an examination recognized as equivalent thereto in the following subjects:—

- I. English (Language or Literature).
- II. Mathematics (Elementary or Additional).

III. A language other than English.

IV. Any other subject (except religious knowledge).

and shall further have passed the Intermediate Examination in Science in the written part and the practicals of this University with Biology as their optional subject, or an equivalent Examination of another recognized University in the subjects of Physics, Chemistry and Biology. The subject of Chemistry should include Organic Chemistry, both theoretical and practical, as a part of the syllabus for the said examination. Candidates who pass the Final M.B., B.S. Examination under the provisions of this Ordinance shall be required to undergo training for a period of 12 months in the manner prescribed subsequent to their passing the Final M.B., B.S. examination and the degrees shall not be conferred on them unless they satisfy the requirements of the said Ordinance, provided, however, that persons who pass the Final M.B., B.S. Examination under the provisions of this Ordinance up to and inclusive of the examination to be held in April, 1957 will be exempted from the provisions of and will be deemed to have qualified for the M.B., B.S. Degrees on their passing the Final M.B., B.S. examination.

A holder of the M.C.P.S. Diploma will be permitted to appear without being required to keep terms, for the first and second M.B., B.S. Examinations at the same time or one after another, and will be permitted to appear for the third M.B., B.S. Examination without keeping terms, only after passing the 1st and 2nd M.B., B.S. Examinations.

Candidates who pass the Final M.B., B.S. Examination under the provisions of this Ordinance shall be required to undergo post examination training for a period of 12 months in the manner prescribed subsequent to their passing the Final M.B., B.S. examination and the degrees shall not be conferred on them unless they satisfy the requirements of the said Ordinance. However persons who pass the Final M.B., B.S. Examination under this provision up to and inclusive of the examination to be held in April, 1957 will be exempted from the post examination training and will be deemed to have qualified for the M.B., B.S. Degrees on their passing the Final M.B., B.S. Examination.

(iii) *Degree of Bachelor of Dental Surgery (B. D. S.) (New Rules)*
For the admission to the courses of study for this degree a candidate must have passed the Intermediate Examination in Science of this University with the subjects of Physics, Chemistry

and Biology or an examination recognised by the University as equivalent thereto.

Candidates will be required to undergo a period of study extending over *four* academic years, and to pass four examinations, *viz.*, the First, the Second, the Third and the Final Examination for the Degree of Bachelor of Dental Surgery. Following are the subjects for the four examinations leading up to the B.L.S. Degree.

(a) **First B.D.S.**

1. *General Human Anatomy including Histology*—1 paper of 3 hours' duration and 1 practical and oral, each carrying 100 marks.
2. *General Human Physiology*—1 paper of 3 hours' duration and 1 practical and oral, each carrying 100 marks.
3. *Dental Materials*.—1 paper of 3 hours duration carrying 100 marks.

(b) **Second B.D.S.**

1. *General and Dental Materia Medica*—1 paper of 3 hours' duration and 1 practical and oral, each carrying 100 marks.
2. *General Pathology and Bacteriology*—1 paper of 3 hours' duration and 1 practical and oral, each carrying 100 marks.
3. *Human Dental Anatomy and Human Dental Physiology with Dental Histology*—1 paper of 3 hours' duration and 1 practical and oral, each carrying 100 marks.
4. *Medicine*—1 paper of 3 hours' duration and 1 clinical and oral, each carrying 100 marks.
5. *General Surgery*—1 paper of 3 hours' duration and 1 clinical and oral, each carrying 100 marks.

(c) **Third B.D.S.**

1. *Dental Pathology and Bacteriology*—1 paper of 3 hours' duration and 1 practical and oral each carrying 100 marks.
2. *Dental Jurisprudence and Practice—Management and Dental History*—1 paper of 3 hours' duration carrying 100 marks.

(d) Final B.D.S.

1. *Dental Prosthesis including Crown and Bridge Prosthesis*—1 paper of 3 hours' duration and 1 practical and oral, each carrying 100 marks.

2. *Pedodontia and Orthodontia*—1 paper of 3 hours' duration carrying 100 marks.

3. *Operative Dentistry*—1 paper of 3 hours' duration and 1 practical and oral, each carrying 100 marks.

4. *Oral Surgery, Exodontia, Anaesthesia*—1 paper of 3 hours' duration and 1 practical and oral each carrying 100 marks.

5. *Periodontia and Dental Radiology*—1 paper of 3 hours' duration, carrying 100 marks.

To pass each of the above examination, a candidate must obtain in each subject 50 per cent of the full marks obtainable in the written and practical and oral tests, if any, separately.

Exemptions.

Candidates who have passed the First Examination for the Degree of M.B., B.S. will be exempted from examination in the papers in (i) General Human Anatomy and (ii) General Human Physiology of the First Examination for the Degree of B.D.S. and will be permitted to complete the course after three years' study at a Dental College affiliated to this University. They will be permitted to appear for the First Examination in the subject of Dental Materials and in the subjects of the Second Examinations for the Degree of B.D.S. in one and the same examination season, after keeping attendance for a period of two terms, and on their passing thereat will be permitted to proceed for the courses of study for the Third and the Final Year Examinations for the Degree of B.D.S. in accordance with the regulations relating to these examinations.

Candidates who have appeared for the 1st M.B., B.S. examination, but who have failed to pass thereat will be permitted to appear for the First Examination for the Degree of B.D.S. after keeping attendance for one term at a Dental College affiliated to this University.

Holders of the L.D.S. (C.P.S.) Diploma and the L.D.Sc.

Diploma awarded by the Dental Board of the Nair Hospital, Dental College, Bombay will be permitted to appear for the First and the Second Examinations for the Degree of B.D.S. in the same examination season after keeping attendance for a period of one term and on their passing thereat for the Third and the Final Examinations for the Degree of B.D.S. in the same examination season after keeping attendance for one term at a Dental College affiliated to this University, provided that they satisfy the requirements regarding the minimum qualifications, for admission to the B.D.S. course mentioned above.

Candidates who hold the Degree of L.M. & S., or M.B., B.S. of this University, or an equivalent qualification of another University or Licensing Body will be permitted to appear for the First and the Second Examinations for the Degree of B.D.S. in one and the same examination season after keeping attendance for a period of two terms in a Dental College affiliated to this University, and will be required to pass in the subjects of Dental Materials only at the First Examination, and in the subject of (i) General and Dental Materia Medica and (ii) Human Dental Anatomy and Human Dental Physiology with Dental Histology at the Second Examination for the Degree of B.D.S. and on their passing thereat will be permitted to appear for the Third and the Final Examinations for the Degree of B.D.S. in one and the same examination season after keeping attendance for a period of two terms.

(iv) **M.D. Examination**
(*New Rules*)

Every candidate for the Degree of Doctor of Medicine must have taken the Degrees of Bachelor of Medicine and Bachelor of Surgery of this University or of any University recognized by this University, or of Licentiate of Medicine and Surgery of this University, and must have passed the examination not less than three years previously.

N.B.—Registration as a post-graduate student is a condition precedent to the commencement of post-graduate courses.

The examination for the Degree of Doctor of Medicine shall comprise the following Branches :—

- I—Medicine and Therapeutics,
- II—Pathology and Bacteriology,
- III—Obstetrics, Gynaecology and Diseases of Infancy.

IV—Pharmacology,

V—Pediatrics,

VI—Tuberculosis.

The examination for the degree of M.D., in each of the above branches, is in two parts, *viz.*, Part I and Part II.

No candidate is admitted to the Examination for Part II unless he has passed the examination for Part I, but a candidate may enter upon the course for Part II before passing the examination for Part I.

Part I

No candidate will be admitted to this examination unless he has completed one year after registering himself as a student for the M.D. degree.

The Examination for Part I in the Branches I, III, V, and VI shall consist of three papers, as under, each of two hours' duration.

Paper I—Applied Anatomy and Applied Physiology, (in relation to the particular Branch for which the candidate has registered).

Paper II—Applied Pharmacology, (in relation to the particular Branch for which the candidate has registered).

Paper III—Pathology and Bacteriology, (in relation to the particular Branch for which the candidate has registered).

The Examination for Part I, in Branches II and IV shall consist of two papers, as under, each of two hours' duration.

Paper I—Applied Anatomy, (in relation to the particular Branch for which the candidate has registered).

Paper II—Applied Physiology, (in relation to the particular Branch for which the candidate has registered).

There shall be no practical, clinical or *viva voce* examination.

Part II

The course for Part II is of the duration of two years.

Every candidate presenting himself for Part II of the M.D.

Examination in any of the Branches must have passed the examination for Part I, and has to submit to the Registrar, together with his application for admission to the examination, the following certificates :—

- (i) A certificate of his having completed, under the guidance and to the satisfaction of a recognized teacher or teachers, the courses of study in the subjects of the Branch in which he presents himself for the examination in accordance with any one of the alternatives provided.
- (ii) A certificate of his having acquainted himself with the subjects allied to his speciality, and approved by the teacher.

Provided further that a candidate presenting himself for the examination in Branch VI must in addition to the above-mentioned certificates, submit with his application a certificate of his having spent, under the guidance and to the satisfaction of a recognized teacher or teachers, six months in the study of Surgical Tuberculosis in the course of the two years of his post-graduate study.

Every candidate presenting himself for Part II of the M.D. Examination for the first time, must submit with his application for admission to the examination four typewritten copies of a dissertation, not exceeding 2,500 words prepared under the direction and guidance and to the satisfaction of his University Teacher. The dissertation may relate to a series of Clinical cases, autopsy records, discussion of a topic (modern or historical) or a review of work on a specific theme. The dissertation is referred to the examiners for Part II of the examination for the particular Branch; and acceptance of it by the examiners is a condition precedent to the admission of the candidate for the written part of the examination. It may form the basis of the *viva voce* examination, and due credit may be given for the same.

A candidate who has submitted his dissertation once will not be required to submit a fresh dissertation, if he re-appears for the examination in the same branch on a subsequent occasion, provided that the dissertation has been accepted by the Examiners. He shall, however, be required to submit a fresh dissertation if he seeks admission to the examination in another Branch.

The courses for Part II may be completed :—

- (i) by post-graduate study in an approved teaching institution or
- (ii) by holding approved appointment or
- (iii) by combination of (i) and (ii).

(a) The periods spent by a candidate in approved appointments for Part II in teaching hospitals will count towards post-graduate study as indicated below :—

- (i) the period spent by a candidate in an approved appointment in his subjects for Part II before passing the examination for Part I will be deemed equivalent to the bare period of the appointment including the duration of the incoming period, if any, provided that the candidate's work is certified as satisfactory by his Post-graduate Teacher and the Head of his Institution.
 - (ii) the period spent by a candidate in an approved appointment in his subjects for Part II after passing the examination for Part I will be deemed equivalent to twice the period of the appointment and the bare duration of the incoming period, if any, provided the candidate's work is certified as satisfactory by his Post-graduate Teacher and the Head of his institution. The maximum period of approved appointment for which credit can be given under the provisions of this clause shall not exceed six months.
- (b) The period spent by a candidate in an approved appointment either in a teaching or a non-teaching hospital in subjects other than that for Part II will be deemed equivalent to half the corresponding period of post-graduate study, provided his work is certified as satisfactory by the Head of the Department in which the post is held and by the Head of the Institution. The maximum period for which credit can be given under this clause shall not, however, exceed one year.
- (c) The period spent by a candidate in an approved appointment held in a non-teaching hospital in the subject of the particular Branch for which they have registered will be recognized for the purpose of post-graduate study and will be deemed equivalent to the bare period of the appointment. The maximum

period of approved appointment for which credit can be given under the provisions of this clause shall not, however, exceed six months.

- (d) The total duration of the studies, namely, two years, shall remain unaffected in any case.

The examination for Part II is as under:—

Branch I—

General Medicine and Therapeutics:

Papers I—III—Three papers on subjects relating to general Medicine and Therapeutics.
Paper IV—An essay.

Branch II—

Pathology and Bacteriology:

Papers I and II.—Two papers relating to Pathology and Bacteriology.
Paper III—General Medicine.
Paper IV—An essay.

Branch III—

Obstetrics, Gynaecology and Diseases of Infancy:

Paper I—Obstetrics and diseases of the new born.
Paper II—Gynaecology.
Paper III—General Medicine.
Paper IV—An essay.

Branch IV—

Pharmacology:

Papers I and II—Theoretical and experimental aspects of pharmacy and toxicology including Bio-assay, Chemical Pharmacology, etc.

and

Applied Pharmacology and Therapeutics, including physio-therapeutics, immuno-therapeutics, etc.

Paper III—General Medicine.

Paper IV—An essay.

Branch V—

Pediatrics:

Paper I—Diseases of Children, Development, Psychology and Child Welfare.
Paper II—Diseases of children, one section in Paper II will be devoted to Pediatric Pathology.

Paper III—General Medicine.

Paper IV—An essay.

Branch VI—

Tuberculosis :

Paper I—Medical aspects of Tuberculosis, Public Health aspects of Tuberculosis.

Paper II—Surgical aspects of Tuberculosis.

Paper III—General Medicine.

Paper IV—An essay.

N.B.—In all branches there shall be clinical, practical and oral examinations.

2. The essay in all the branches shall cover subjects of the speciality including the history of the branch concerned. Optional themes shall be given for the essay.
3. Each paper shall be of three hours' duration.
4. The examiners appointed for the M.D. Examination in Part II shall have the power to refer any of the failed candidates for one year.
5. The paper in General Medicine for all the Branches shall be set and examined by the Specialists in the respective branches.

(v) M.S. Examination

(New Rules)

Every candidate for the Degree of Master of Surgery must have taken the degrees of Bachelor of Medicine and Bachelor of Surgery of this University or of any University recognized by this University, or of Licentiate of Medicine and Surgery of this University, and must have passed the examination not less than three years previously.

N.B.—Registration as a post-graduate student is a condition precedent to the commencement of post-graduate studies.

The examination for the Degree of Master of Surgery comprises the following branches :—

- I. General Surgery,
- II. Orthopaedics,
- III. Oto-rhino-laryngology,
- IV. Ophthalmology.

The examination for the degree of M.S. in each of the above branches is in two parts, viz., Part I and Part II.

No candidate is admitted to the Examination for Part II unless he has passed the examination for Part I, but a candidate may enter upon the course for Part II before passing the examination for Part I.

Part I

No candidate will be admitted to this examination unless he has completed one year after registering himself as a student for the M.S. degree.

The Examination for Part I in the different Branches consist of three papers, as under, each of two hours' duration.

For Branches I & II

Paper I—Anatomy and Embriology, (in relation to the particular Branch for which the candidate has registered).

Paper II—Physiology and Applied Pharmacology, (in relation to the particular Branch for which the candidate has registered).

Part III—Pathology and Bacteriology, (in relation to the particular Branch for which the candidate has registered).

For Branches III & IV.

Paper I—Applied Anatomy and Appleid Physiology, (in relation to the particular Branch for which the candidate has registered).

Paper II—Applied Pharmacology, (in relation to the particular Branch for which the candidate has registered).

Paper III—Pathology and Bacteriology, (in relation to the particular Branch for which the candidate has registered).

There shall be no practical, clinical or *viva voce* examination.

Part II

(The details regarding the requirements to be satisfied by

candidates for Part II of the M. S. examination and the method by which the course for Part II may be completed apply *mutatis mutandis* to Part II of the M. S. examination.

The examination for M.S. Part II is as under :—

Branch I.—General Surgery :

Papers I—III—Papers on subjects relating to General Surgery.
Paper IV—An essay.

Branch II—Orthopaedics :

Papers I and II—Papers on subjects relating to the Speciality.
Papers III—General Surgery.
Paper IV—An essay.

Branch III—Oto-rhino-laryngology :

Papers I and II—Papers on subjects relating to the Speciality.
Paper III—General Surgery.
Paper IV—An essay.

Branch IV.—Ophthalmology :

Papers I and II—Ophthalmic Medicine and Surgery and Optics.
Paper III—The relation of Ophthalmology to General Medicine and Surgery.
Paper IV—An essay.

- N.B.*—1. In all branches there shall be clinical, practical and oral examination.
2. The essay in all branches will cover subjects of the speciality including history of the branch concerned. Optional themes shall be given for the essay.
3. Each paper shall be of three hours duration.
4. The examiners appointed for the M.S. Examination in Part II shall have the power to refer any of the failed candidates for one year.
5. Paper III in Branches II, III and IV shall be set and examined by specialists in respective branches.

(vi) **Degree of Bachelor of Science (Medical) B. Sc. (Med.)**

The Examination for the B.Sc.(Med.) is open to those who

have passed the M.B., B.S. Degree of this University or of any other University recognized by this University and have registered for the M.Sc.(Med.) Degree. Candidates for the examination must select a subsidiary and a Principal subject out of the following—

- (i) Human Anatomy ;
- (ii) Human Physiology ;
- (iii) Pharmacology ;
- (iv) Pathology, Bacteriology and Parasitology.

Candidates are not be required to keep terms in addition to the terms kept by them during their medical studies for the above subjects.

The scheme of the Examination for the subsidiary as well as the Principal subjects is as under :—

- A. Two papers of 100 marks each and of three hours' duration each.
- B. Two practicals of not less than three hours' duration each and a *viva voce*.

Total marks for the practical and oral are 200.

To pass the examination, a candidate must obtain 50 per cent of the marks in the written and 50 per cent in the practical and oral examinations combined.

For the First Class a candidate must obtain 60 per cent or more marks in the total.

(vii) **Degree of Master of Science (Medical) M.Sc. (Med.)**

The M.Sc.(Med.) Examination is open to those who have taken the M.B., B.S. degree of this University or of any other University recognized as equivalent thereto and have taken (a) the B.Sc.(Med.) Examination of this University or (b) the B.Sc. Degree of this University in any of the following subjects, *viz.*, Anatomy, Physiology or Micro-biology or (c) the B.Pharm. Degree of this University. Candidates have to undergo a post-graduate course in the subjects selected for two academic years the satisfaction of a recognized University teacher.

The examination comprises the following branches :

I. Human Anatomy ;

II. Human Physiology ;

III. Pharmacology ;

IV. Pathology, Bacteriology and Parasitology.

The details of the examination are as under :

(a) Three papers pertaining to the speciality. The papers are of 100 marks each and of three hours' duration each.

The papers in different branches are as under :—

Branch I.—Human Anatomy :

Paper 1—Anatomy.

Paper 2—Anatomy including comparative Anatomy.

Paper 3—Embryology and history of Anatomy.

Branch II.—Human Physiology :

Paper 1—General Physiology,

Paper 2—Biochemistry and Metabolism.

Paper 3—Mammalian Physiology, comparative Physiology and history of Physiology.

Branch III—

Papers 1 and 2 Theoretical and experimental aspects of Pharmacology and history of Pharmacology.

Paper 3—Applied Pharmacology.

Branch IV—

Pathology, Bacteriology and Parasitology.

Note.—Candidates may select any of the combinations of papers detailed below :

(i) Papers 1 to 3 in Pathology exclusively.

(ii) Paper 1 Pathology—General.

Paper 2 and 3—Bacteriology including history of Bacteriology.

(iii) Paper 1 Pathology—General.

Papers 2 and 3—Animal Parasitology

(b) Practicals which may extend up to three days—there being two practicals of three hours' duration each, each day.

(c) A *viva voce* examination.

Total marks for the practicals and the oral are 300.

A discussion on the dissertation forms a part of the *viva*.

To pass the examination a candidate must obtain 50 per cent in the written and 50 per cent in the practical and oral combined.

A candidate must obtain 66 per cent or more in the total for a First Class and 75 per cent or more in any paper or papers where there are separate papers in special subjects for a distinction.

(viii) **Diploma in Public Health**

Candidates who have passed not less than a year previously the M.B., B.S. Examination of this or any other recognized University, or who have taken the Degree of L.M. and S. of this University only, are admitted to this examination.

The examination is divided into two Parts, Part I and Part II. A candidate must pass in all subjects of Part I before being admitted to the examination for Part II. A candidate may appear in Part I (but not Part II) of the examination on completion of a year after graduation, provided that after passing any of the qualifying examinations mentioned above he has attended during a period of one academic year courses in—

(1) Bacteriology and Parasitology (including Medical Entomology and Protozoology, Helminthology and Immunology) especially in their relation to diseases of man and to those diseases of the lower animals transmissible to man. (Duration of the course : at least 140 hours).

(2) Chemistry, Physics, Radiology, Electrolgy, Meteorology and Climatology in relation to Public Health. (Duration of the course : at least 140 hours).

A candidate can appear in Part II after producing the certificate to the effect that (i) he has passed Part I of the examination ; (ii) he has during one academic year been engaged in acquiring practical knowledge of the duties, routine and special, of Public Health Administration under the supervision of a Medical Officer of Health and

has received from this Officer or other responsible Officer, during periods of not less than three hours each on sixty working days, practical instruction in the following subjects in a recognised institution ; (a) Maternity and Child Welfare Service ; (b) Health Service for Children of School age ; (c) Venereal Disease service ; (d) Tuberculosis service ; (e) Industrial Hygiene ; (f) Inspection and Control of Food, including meat and milk. (Instruction in (a) to (f) should include attendance at the Centres, Clinics Institutions and premises concerned).

Certificates of having received the prescribed instruction in Public Health Administration must be given by the Health Officers of Bombay, Calcutta or Madras. The Laboratory instruction and practical knowledge of Public Health Administration given in any part of the United Kingdom and approved by the General Medical Council will be accepted.

- (iii) he has received during not less than 80 hours from a Teacher approved by the University, instruction in the following subjects: The Principles of Public Health and Sanitation—30 hours, Epidemiology and Vital Statistics—20 hours, Sanitary Law and Administration—20 hours, Sanitary Construction and Planning—10 hours (the numbers indicate the approximate proportion of hours to be devoted to each subject).

Part I

Part I consists of two papers and a practical examination in the Laboratory work and *viva voce* examination, the contents of the papers being distributed as under :

Paper I—Physics, Radiology, Electrology, Meteorology, Climatology and Chemistry.

Paper II—Bacteriology, Parasitology, Protozoology, Helminthology and Immunology.

Part II

Part II consists of two papers as under, a practical examination, report on subjects connected with outdoor sanitary work and a *viva voce* examination :

Paper I—Epidemiology and Endemiology and Vital Statistics.

Paper II—Practical Sanitation and Sanitary Law.

To pass the examination a candidate must obtain 50 per cent of the total marks in each paper and 50 per cent of the total marks in each practical.

(ix) **Degree of Doctor of Hygiene**

The examination for this Degree is open to candidates who have passed at least one year previously the examination for the Degree of Bachelor of Hygiene or the D.P.H. Examination of this University or an equivalent examination of any other recognised University. Further each candidate must have attended outdoor and indoor work of a Medical Officer of Health for one year under the supervision of an approved Health Officer.

The examination is conducted as follows:—(i) Public Health—three papers and a practical and an oral examination: (ii) Sanitary Laws of England and India—one paper and an oral examination. The scope of this examination is fuller than that of the Degree of Bachelor of Hygiene, and candidate must show competent knowledge of Sanitary Science in all its branches.

(x) **Diploma Course in Psychological Medicine**

The examination for this diploma is open to those who have passed the M.B., B.S. examination of this or any other recognised University. Candidates are permitted to appear for the examination 18 months after passing the M.B., B.S., and after attendance at systematic courses of lectures and lecture demonstrations at mental hospitals, Psycopathic hospital and Child Guidance Clinic.

The examination consists of two parts as under:—

Part I

- (a) *Psychology*—
One paper of three hours' duration and carrying 100 marks.
One oral, carrying 50 marks.
- (b) *Anatomy and Physiology of the Central Nervous System*—
One paper in Anatomy and Physiology, of two hours' duration and carrying 50 marks.

One practical and oral in Anatomy and Physiology, carrying 50 marks.

Part II

(a) *Psychiatry*—

Two papers, each of three hours' duration and carrying 100 marks each.

One Essay or commentary on a case, of 50 marks. Clinical Examination, carrying 100 marks.

Oral Examination, carrying 50 marks.

(b) *Neurology*—

One paper, of three hours' duration, carrying 100 marks.

Clinical and Oral Examinations, carrying 50 marks.

(xi) **Diploma in Medical Radiology and Electrology**

The examination for this Diploma is open to those who have passed the M.B., B.S. examination of this or any other recognized University. The courses for this diploma extends over one academic year and the examination consists of two parts as under:—

Part I.—Physics and Electro-technics (One paper), One Practical inclusive of the oral examination ;

Part II.—Radiology, Electrology and Pathology (One paper) One Practical and Clinical examination inclusive of the oral ;

(xii) **Diploma in Anaesthesia**

The examination for this Diploma is open to those who have passed M.B., B.S. Examination of this University or any other recognized University or the L.M. & S. Examination of this University and who have

(a) held an appointment as a Resident Anaesthetist or any other approved appointment at a hospital recognized by the University for the purpose for a period of at least 12 months ; or (b) of having personally administered anaesthetics in a recognized hospital on 1,000 recorded occasions, at least 300 of which shall have been for major surgical procedures, or (c) of

having satisfactorily completed a course of special instruction in the syllabus prescribed for this diploma.

The examination is partly written and partly practical. The written examination consists of two papers as under :—

Paper I—Anatomy, Physiology and Pharmacology.
Paper II—Theory and practice of Anaesthesia.

The practical examination consists of 2 orals and 2 practicals as under :—

1. Demonstration of the use of the various types of apparatus employed in the production of anaesthesia and their maintenance.
2. Practice of Anaesthesia.

(xiii) **Diploma in Venereology and Dermatology**

The examination for this diploma is open to those who have taken at least 12 months previously the degrees of M.B., B.S. of this University or any other recognized University or the L.M. & S. degree of this University and have

- (a) held an approved appointment of at least 3 months in the Skin Diseases Department and 3 months in the Venereal Diseases Department of a recognised hospital or a recognised institution, or (b) attended, subsequently to having passed the examination for the Degree of L.M. & S., or the M.B., B.S. Degrees the post-graduate course for a period of 12 months at an institution recognized for the purpose and (c) satisfactorily completed during this period a course of special instruction in Anatomy, Embryology, Physiology, Pathology and Bacteriology of the skin and genito-urinary tract including work in the laboratory.

The examination is partly written and partly practical. The written examination will be in the following subjects

Paper I—Section A—Anatomy, Physiology, Pathology and Bacteriology of Skin and Genito-urinary Tract.
Section B—Preventive aspects relating to Skin and Venereal Diseases.
Paper II—Venereal Diseases.

Paper IIII—Skin Diseases.

The practical examination consists of clinical, practical and oral tests.

(xiv) **Diploma in Forensic Medicine**

The examination for this Diploma is open to those who have taken not less than two years previously the M.B., B.S. degrees of this University or of any University recognized by this University and

- (1) have held for a period of six months a resident appointment as a house physician or house-surgeon, as a casualty officer of a hospital having a least 100 beds,

or

- (2) have undergone practical training
 - (i) for a period of three months in Laboratory of the Chemical Analyser,
 - (ii) in clinical practice of forensic medicine for a period of three months under the Police-Surgeon,
 - (iii) in the performance of medico-legal autopsies in recognized institutions for a period of three months.
 - (iv) hospital practice in a mental hospital for a period of three months.
 - (v) in the pathological laboratory for a period of three months.

(Any two of the courses mentioned above could be taken concurrently.)

and produce a certificate of having studied comparative anatomy from the forensic aspect particularly bones for a period of three months and having attended a course of lectures for a period of three months.

It shall be competent to the Syndicate to grant, on the merits of each case, exemption from any of the above requirements.

The examination is partly written and partly practical. There shall be three papers, in written examination as under :—

3 hours duration.

- | | |
|---------------------------------------|------------|
| I. Forensic medicine including juris- | |
| prudence | 100 marks. |

3 hours duration

II. Forensic chemistry and toxicology	100 marks.
III. Criminal psychology and psychiatry	100 marks.

The practical will consist of—

(a) Clinical examination	100 marks.
(b) Laboratory examination in forensic chemistry	50 marks.
(c) Do. Pathological aspect of forensic medicine	50 marks.
(d) <i>Viva voce</i> examination	100 marks.

For passing the Examination a candidate shall obtain 50 per cent of the total marks in each paper and 50 per cent of the total marks in each practical.

Fees for admission to Examinations

Intermediate Examination in Arts	30
Intermediate Examination in Commerce	30
Intermediate Examination in Science	40
B.A. (General & Special) Examination	50
M.A. Examination	50
B.Com. Examination	50
M.Com. Examination	100
T.D. Examination (Part I)	15
T.D. Examination (Part II)	10
T.D. Examination (Both Parts)	25
B.T. Examination (either Part)	15
Diploma in Librarianship	15
M.Ed. Examination	75
B.Sc. Examination (Principal Subjects)	50
B.Sc. Examination (Subsidiary Subjects)	35
B.Sc. Examination (Principal and Subsidiary both taken together)...	70
B.Sc. (Tech.) Examination	100
M.Sc. Examination	100
M.Sc. (Tech.) Examination	100
F.Sc. (Vet.) Examination	40
S.Sc. (Vet.) Examination	40
Third year B.Sc. (Vet.) Examination	50

B.Sc. (Vet.) Examination	...	...	50	
Intermediate Textiles Examination			30	
Third B. Text. Examination	...	...	30	
B. Text. Examination	...	...	50	
M.Sc. (Agri) Examination	...	...	100	
First Examination in Engineering	...	...	40	
Second Examination in Engineering (Civil, Mechanical & Electrical)			40	
M.E. Examination	...	...	100	
First LL.B. Examination (Old)	...	...	40	
Second LL.B. Examination (Old)	...	...	60	
Law Preliminary	...	...	35	
First LL.B. (New)	...	...	40	
LL.M. Examination	...	...	150	
First M.B., B.S. Examination (old)	...	...	40	
Second M.B., B.S. Examination (old)	...	...	20	
Third M.B., B.S. Examination (old)	...	...	75	
B.D.S. Examination (First) (Old)	...	...	50	(Rs. 30 each group)
B.D.S. Examination (Final) (Old)	...	...	75	(Rs. 40 for each group)
D.M.R.E. Examination	...	...	75	
D.P.M.	...	...	75	
D.A.	...	...	150	
D.Ped.	...	...	150	
D.L.O.	...	...	150	
T.D.D.	...	...	75	
D.V.D.	...	...	150	
D.P.H. Examination	...	...	100	for each part.
M.D. (Part I) New Rules	...	...	50	
M.D. (Part II) New Rules	...	...	150	
M.S. (Part I) New Rules	...	...	50	
M.S. (Part II) New Rules	...	...	150	
B.Sc. (Medical)	...	...	50	
M.Sc (Medical)	...	...	100	
D.Hy.	...	...	200	
Examination for a Diploma in Ophthalmology	...	...	200	
Ph.D. Translation Test	...	...	25	
Ph.D. Examination	...	...	100	
D.Litt. Examination	...	...	200	
D.Sc. Examination	...	...	200	
F.Y.B. Chem. Eng.	...	...	40	

CALCUTTA UNIVERSITY

Introductory

In July 1854, the Court of Directors sent out a Despatch to the Governor-General of India in Council, directing the organization of the Universities of Calcutta, Madras and Bombay. In pursuance of that Despatch, the University of Calcutta was founded on 24th January, 1857. As regards its constitution, the University adopted, in the first instance, the form, government and regulations of the University of London, and gradually as necessity arose, changed and adapted them to the requirements of its own students.

The University of Calcutta was incorporated by an Act of the Legislative Council (Act No. II of 1857) for the purpose of ascertaining by means of examination the persons who had acquired proficiency in the different branches of Literature, Science and Art, and of rewarding them by academical degrees.

A supplementary Act was passed in 1860 (Act No. XLVII of 1860) giving the power of conferring Degrees other than those provided for in the former Act.

An additional Act was passed in 1884 (to amend Act No. XXI of 1875, which authorized the University of Calcutta to grant University Degrees) giving the University the power of conferring the Honorary Degrees of Doctor in the Faculty of Law upon any person, on the ground of his eminent position and attainments, without requiring him to undergo any examination. The first honorary Degree of D. L. granted by the University was conferred upon the late King-Emperor Edward VII (then H.R.H. the Prince of Wales) at a convocation held on 3rd January 1875.

In January, 1902, His Excellency the Governor-General of India-in-Council appointed a Commission "to inquire into the condition and prospects of the Universities established in British India ; to consider and report upon any proposals which have been, or may be, made for improving their constitution and working and to recommend to the Governor-General in Council, such measures as may tend to elevate the standard of University teaching, and to promote the advancement of Learning." The Commission submitted their Report on the 9th of June, 1902.

An Act amending the Law relating to the Universities in British India (Act VIII of 1904), passed by the Governor-General of India in Council, received the assent of the Governor-General on the 24th of March 1904, and it came into force on the 1st of September 1904. Act VIII of 1904 was amended by Act II of 1905, Act XI of 1911 and Act VII of 1921. Under Act II of 1857, the University was only an examining body. Under Section 3 of Act VIII of 1904, the University has been empowered to make "provision for the instruction of students, to appoint University Professors, Readers and Lecturers, to hold and manage educational endowments, to erect, equip and maintain University Libraries, Laboratories and Museums, to make regulations relating to the residence and conduct of students, and to do all acts consistent with the Act of Incorporation to this Act, which tend to the promotion of study and research."

The Calcutta University Act, 1951 (West Bengal Act XVIII of 1951) envisages various important changes in the constitution and character of the University. The constitutions of the Senate and the Syndicate have been changed and the Act also provides for the formation of an Academic Council which will primarily act as the academic authority of the University. The Act also provides for the appointment of a whole-time salaried Vice-Chancellor. In certain cases the State Government is empowered to institute an enquiry into its income and expenditure, assets and liabilities or cause an inspection of the University, its buildings, laboratories, museums etc., and of all its activities other than academic. The Act also has made certain rules for the appointment of Professors, Readers and Teachers. Sri Sambhunath Banerjee, M.Sc., LL.B., Barrister-at-Law was appointed the first Vice-Chancellor on 15th September, 1951 under Section 52 of the new Act for a term of two years—which term has been extended for a period of six months—and he is required to cause the first Statutes, the first Ordinances and the first Regulations of the University to be framed with the approval of the Chancellor and with the assistance of a Committee of not more than six members nominated by the Chancellor.

Officers and Staff of the University

Chancellor

Dr. Harendra Coomar Mookerjee, M.A., Ph.D., D.Litt.

Vice-Chancellor

Dr. Sambhunath Banerjee, M.Sc., LL.D., Barrister-at-Law.

Registrar

Dr. Snehamay Dutta, D.Sc. (Lond.), F.N.I.

Deans

Arts	..	..	Professor Srikumar Banerjee, M.A., LL.B., Ph.D.
Science	..	..	Professor Satyendranath Bose, M.Sc.
Engineering	..	..	Shri Pratapchandra Bose, B.Sc. Eng. (Glasgow), M.I.E. (Ind.), F.N.I.
Law	..	..	Dr. Sambhunath Banerjee, M.Sc., LL.D., Barrister-at-Law.
Medicine	..	..	Dr. Lalitmohan Banerjee, M.S.(Cal.), F.R.C.S. (Eng.).
Technology	..	..	Professor Sisir Kumar Mitra, D.Sc., F.N.I.
Veterinary Science	..	..	Shri Bhupeschandra Dasgupta, M.B., M.R.C.P. D.T.M. & H., D.P.H.

University Professors*Sanskrit*

Dr. Satkari Mukherjee, M.A., Ph.D., Asutosh Professor.

Islamic Studies

Dr. Muhammad Zubair Siddiqi, M.A., LL.B., Ph.D. (Cantab.),
Asutosh Professor.

Mediaeval and Modern Indian History

Dr. Indubhusan Banerjee, M.A., Ph.D., Asutosh Professor.

Ancient Indian History and Culture

Dr. Jitendranath Banerjee, M.A., Ph.D., Carmichael Professor.
Dr. Stella Kramrisch, Ph.D.,—Professor.

Islamic History and Culture

Professor—*Vacant*.

Fine Arts

Dr. Niharranjan Ray, M.A., (Cal.) D.Phil. (Leyden), Dip.Lib. (Lond.), F.L.A., Bageswari Professor.

Philosophy

Dr. Susilkumar Maitra, M.A., Ph.D., Acharyya B.N. Seal Professor.

Dr. Sarvapalli Radhakrishnan, M.A., D.Litt., *Emeritus* Professor.

English

Dr. Mohini Mohan Bhattacharyya, M.A., LL.B. Ph.D., Sir Gooroodas Banerjee Professor.

Economics

Dr. Jitendraprasad Niyogi, M.A., Ph.D., Professor.

Indian Languages

Dr. Srikumar Banerjee, M.A., LL.B., Ph.D., Ramtanu Lahiri Professor.

Sri Khagendranath Mitra, M.A., *Emeritus* Professor.

Pali

Dr. Nalinaksha Dutt, M.A., Ph.D., D.Litt. (Lond.)—Professor.

Comparative Philology

Dr. Sunitikumar Chatterji, M.A., D.Litt. (Lond.), *Emeritus* Professor.

Mathematics

Dr. Haridas Bagchi, M.A., Ph.D., Hardinge Professor.

Applied Mathematics

Dr. Nikhilranjan Sen, M.A., D.Sc., Ph.D., F.N.I., Ghose Professor

Physics

Dr. Meghnad Saha, D.Sc., F.R.S., Palit Professor. (*on leave*)
 Dr. Basanteshlal Nagchaudhury, M.Sc., Ph.D., Acting Palit Professor.
 Sri Satyendranath Bose, M.Sc., Khaira Professor.

Applied Physics

Dr. Purnachandra Mahanti, D.Sc., F.Inst.P., Ghose Professor.

Radio Physics and Electronics

Dr. Sisir Kumar Mitra, D.Sc., F.N.I., Ghose Professor.

Chemistry

Dr. Pulin Bihari Sarkar, Dr.Es.Sc., A.I.C. Ghose Professor
(Actg.)

Dr. Jogendrachandra Bardhan, D.Sc. (Cal. and Lond.), Khaira
Professor.

Dr. Bhupendra Nath Gosh, D.Sc., Palit Professor.

Applied Chemistry

Dr. Bireschandra Guha, M.A., Ph.D., D.Sc. (Lond.), Ghose
Professor, (*on leave*).

Dr. Mahendranath Goswami, M.A., Dr.Es.Sc. Ghose
Professor. (*Actg.*)

Botany

Dr. Prabhatchandra Sarbadhikari, D.Sc. (Lond.), Ph.D. (Lond.),
D.I.C., F.L.S., Ghose Professor.

Agriculture

Dr. Pabitrakumar Sen, M.Sc., Ph.D. (Lond.), D.I.C., Khaira
Professor.

Physiology

Dr. Bijalibihari Sarkar, D.Sc., F.R.S.E., Professor.

Zoology

Dr. Himadrikumar Mookerjee, D.Sc. (Lond.), D.I.C., Sir
Nilratan Sircar Professor.

Psychology

Dr. Suhritchandra Mitra, M.A., D.Phil. (Leipzig), Professor.

Anthropology

Sri Kshitiprasad Chattopadhyaya, M.Sc. (Cantab.) Professor.

Agricultural Chemistry

Vacant. Sir Prafullachandra Ray Professor.

Political Science

Sri Debendranath Banerjee, M.A., Surendranath Banerjee Professor.

Geography

Dr. Sivaprasad Chatterjee, M.Sc., T.D. (Lond.), Ph.D. (Lond.), D.Litt. (Paris), F.G.S., Professor.

Geology

Sri Nirmalnath Chatterjee, M.Sc., Professor.

Affiliated Colleges

<i>College</i>	<i>Principal</i>
The Presidency College, Calcutta.	Dr. J. C. Sengupta, M.Sc., D.Phil. (Heidelberg).
Hooghly Mohsin College ..	Dr. B. B. Sen, D.Sc.
Krishnagar College	Sri S. K. Guhathakurta, M.A.
Krishnash College, Berhampur	Sri N. K. Sarkar, M.A.
Scottish Church College, Calcutta.	Rev. John Kellas, M.A.
Sanskrit College, Calcutta ..	Dr. Sadananda Bhaduri, M.A. Ph.D.
St. Xavier's College	Rev. Henri Barre, S.J., <i>Rector</i> .
Vidyasagar College	Sri A. K. Dutt, M.A., LL.B.
Midnapur College	Lt.-Col. A. C. Chakrabarti, M.Sc., M.A. (Cantab.)
City College	Sri A. K. Sen, M.A.
Burdwan Raj College ..	Sri P. C. Sanyal, M.A.

<i>College</i>	<i>Principal</i>
Surendranah College, Calcutta	Sri Prafullakumar Guha, M.A., LL.B.
Raja Peary Mohan College, Uttarpara.	Sri K. C. Gupta, M.Sc., LL.B.,
Bangabasi College, Calcutta ..	Sri P. K. Bose, M.A. (Cal.), B.A. (Oxon.), LL.B.
Bethune College, Calcutta ..	Mrs. Mrinalini Emerson, M.A.
Victoria College, Cooch Behar.	Dr. S. Ganguli, M.A., Ph.D., (Lond.)
Krishnachandra College, Het-tampur, Birbhum.	Sri Bhupendrachandra Sengupta, M.A., LL.B.
St. Paul's Cathedral Mission College, Calcutta	Sri H. K. Bannerji, B.Litt. (Oxon.)
Bankura Christian College ..	Sri Anilkumar Mundle, M.A.
Scrapore College	Rev. C. E. Abraham, M.A., D.D.
Loreto House	Mother M. J. Consiglio Frayne B.A., H.Dip.Ed. (Dublin).
Asutosh College	Sri Someswarprasad Mukherjee, M.A., LL.B.
Narasinha Dutt College, Howrah	Sri Jnanendranath Sen, M.Sc.
St. Joseph's College, Calcutta ..	Rev. Brother T. A. Comber.
Central Calcutta College, Calcutta.	J. C. Friend-Pereira, Esq., M.A. (Cantab.)
Prabhat Kumar College, Contai (Midnapur).	Sri Nepalchandra Roy, M.Sc.
St. Joseph's College, Darjeeling.	Rev. M. Standford, S.J.
La Martiniere College, Calcutta	H. G. Chalke, Esq., B.A. (Lond.)
Chandranagore College ..	Sri P. B. Mitra, M.Sc., LL.B.
Victoria Institution for Girls Calcutta.	Mrs. Suprabha Chaudhuri, M.A.
Scottish Universities' Mission College, Kalimpong	K. D. Pradhan (Actg.)
Salesian College, Sonada ..	Rev. R. Dal Zovo, S.D.B., D.D.

*College**Principal*

St. Paul's College, Darjeeling ..	L. J. Goddard Esq., M.A. (Cantab.)
Gokhale Memorial Girls' College, Calcutta.	Miss S. E. Rani Ghosh, M.A., B.T., T.D. (Lond.).
South Calcutta Girls' College ..	Mrs. Bani Mitra, M.A.
Lady Brabourne College, Calcutta	Dr. Mrs. Roma Chaudhri, M.A., D.Phil. (Oxon.)
Women's College, Calcutta ..	Dr. D. L. De, M.A., Ph.D. (Lond.)
Ramakrishna Mission Vidya-mandir, Belur.	Swami Tejasananda.
Maharaja Manindrachandra College, Calcutta.	Dr. A. C. Banerjee, M.A., Ph.D.
Anandachandra College, Jalpaiguri.	Sri I. B. Majumdar, M.A.
Kalna College, Burdwan ..	Sri A. C. Basu, M.A., LL.B., B.A. (Lond.)
Asansol College, Burdwan ..	Sri B. B. Bhattacharyya, M.A.
Malda College, Malda	Sri D.K. Bhattacharyya, M.A.
Ramananda College, Bishnupur, Bankura.	Sri R. G. Ray, M.A.
Seth Anandaran Jaipuria College, Calcutta.	Sri S. C. Pal, M.A., B.T.
Muralidhar Girls' College, Ballygunje, Calcutta.	Sri Nalinimohan Mukherjee Sastri, M.A.
Ramsaday College, Amta, Howrah.	Sri Chandra Kumar Dhar, M.Sc., LL.B. (Offg.)
Mahisadal Raj College, Midnapur.	Sri S. Kahali, M.A.
Berhampore Girls' College, Murshidabad.	Miss Priti Gupta, M.A., B.T.
Gobardanga Hindu College, 24-Pergs.	Sri A. C. Banerjee, M.A.
Bashirhat College, 24-Pergs. ..	Sri S. K. Pal, M.A., LL.B.
Naihati Rishi Bankimchandra College, 24-Pergs.	Dr. S.R. Dasgupta, M.A., Ph.D.

<i>College</i>	<i>Principal</i>
Bangaon Dinabandhu Mahavidyalaya, 24-Perags.	Sri C. C. Mitra, M.A.
Women's Christian College, Calcutta.	Miss Stella Bose, M.A., B.T.
Girls' College, Howrah ..	Sri B. K. Bhattacharyya, M.A.
Maharaja Birbikram College, Agartala	Sri J. K. Choudhuri, B.A. (Oxon.), M.A., LL.B.
Goenka College, of Commerce and Business Administration	Sri P. C. Ghosh, M.A.
Sibpur Dinabandhu Institution, Howrah.	Sri B. K. Bhattacharya, M.A.
Netaji Mahavidyalaya, Arambagh, Hooghly.	Sri G. D. Sen, M.A.
Katwa College, Burdwan ..	Sri H. M. Mukherjea, M.A.
Syamsundar College, Burdwan.	Sri P.D. Banerji, M.A. (Cal.) M.Ed. (Leeds.), Dip. in Edn. (Luds.)
Bankura Sammilani College ..	Sri A. K. Ray, M.Sc.
Darjeeling Govt. College ..	Sri K. D. Ghosh, M.A., (Oxon.), Dip. in Edu. (Oxford), Barrister-at-Law.
Tamralipta Mahavidyalaya, Tamluk.	Sri D. Chaudhuri, M.A., LL.B.
Uluberia College, Howrah ..	Sri Haripada Ghosal, M.A.
Balurghat College, West Dinajpur.	Sri Surendrakumar Majumdar, M.Sc.
Garbeta College, Midnapur ..	Sri R. N. Sarkar, M.A., B.T.
Raiganj College, West Dinajpur	Sri K. K. Saraswati, M.Sc., LL.B.
Santipur College, Nadia ..	Sri M. K. Chakrabarti, M.A.
Sripat Singh College, Jiaganj ..	Sri J. C. Bhattacharyya, M.A.
Charuchandra College, Calcutta	Dr. Satyendranath Ray, M.A., Ph.D. (Lond.)
Fakirchand College, Diamond Harbour.	Sri S.K. Das, M.A.
Vidyasagar College, Nabadwip	Sri A. N. Mukherjee, M.A.
Vidyasagar College, Suri, Birbhum,	Sri Arunkumar Sen, M.A.

<i>College</i>	<i>Principal</i>
Vijaygarh College, 24-Perghs.	Sri Amiyabhusan Chakrabarti, M.A.
Jhargram Agricultural College	Prof. P. K. Sen, M.Sc., Ph.D. (Lond.), D.I.C.
David Hare Training College, Calcutta.	Dr. S.K. Majumdar, M.Sc. (Cal.), Ph.D. (Munich).
Union Christian Training College, Berhampore.	T. C. Vicary, Esq., M.A. (Lond.), A.K.C.
University Law College, Calcutta.	Prof. Pramathanath Banerjee, M.A., LL.B., D.Litt., LL.D., Barrister-at-Law, Vidya-vachaspati.
Surendranath Law College, Calcutta.	Dr. S. C. Chaudhuri, M.A., LL.D. (Cantab.), Barrister-at-Law.
Calcutta Dental College	Sri N. C. Barori.
Medical College, Calcutta ..	Sri Dineshchandra Chakravarti, F.R.C.S. (Edin.)
R. G. Kar Medical College, Belgachia, Calcutta.	Sri S. K. Sen, M.Sc., M.B., D.P.H., L.M. (Dub.)
All-India Institute of Hygiene and Public Health, Calcutta.	Dr. K.V. Krishnan, M.B.B.S., D.Sc., F.R.C.P. (Edin.)
Nilratan Sarkar Medical College, Calcutta.	Sri A. K. Dattagupta, M.B., D.T.M.
National Medical Institute, Calcutta.	Dr. M. Pan, M. B. B. S., L.R.C.P., F.R.C.S.
Bengal Engineering College, Sibpur, Howrah.	Dr. S. R. Sengupta, B.Sc., Ph.D. (Glas.), M.I.E. (Ind.), M.Am.Soc.E., M.Am. Soc. M.E., M.I.Ac.Sc., M.M.E., Am. I., M. Ind. Metals.
Kandi Raj College	Dr. D. L. Das, M.A., Ph.D.
Kharagpur College	Sri H. B. Sarkar, M.A.
Prasannadeb Balika Mahavidyalaya, Jalpaiguri,	Miss Charupama Bose, M.A.

<i>College</i>	<i>Principal</i>
Rampurhat College	Sri H. K. Roy, M.A., LL.B.
Ranaghat College	Sri K. C. Chakrabarti, M.A., LL.B.
Siliguri College	Sri B. C. Guha, M.A.
Taki Govt. College	Sri B. Ghosh, M.A.
Barisha College	Dr. Susilkumar Roy, D.Sc.
Bengal Tanning Institute, Calcutta.	Sri M. Banerjee, B.Sc. (Cal.), M.Sc. (Leeds.)
Dum Dum Motijheel College.	Sri N. L. Gaguly, M.A.
Manimala Girls' College, Asansol.	Sri K. C. De, M.A.
Barasat College	Sri N. G. Banerjee, M.A.
Bolpur College	Sri S. R. Ray, M.A.
Hooghly Women's College ..	Miss Santisudha Ghosh, M.A.
Vijaynarayan Mahavidyalaya, Itachuna.	Sri G. C. Majumdar, M.A.
Jangipur College	Sri B. R. De, M.A.
Ramkrishna Mahavidyalaya, Kailasaler	Sri S. Dhar, M.A.

Constitution of the University

The University authorities are (under Indian Universities Act, 1904)—

- (1) *The Chancellor* (Governor of West Bengal for the time being.)
- (2) *The Vice-Chancellor* who is appointed by the Government of West Bengal from among the Fellows.
- (3) *The Ex-officio* Fellows.
- (4) The Ordinary Fellows.

The Senate.—The Chancellor, Vice-Chancellor, and Fellows constitute the Senate which is the Governing Body of the University and has the powers to make and alter Bye-laws and Regulations subject to the approval of the Government of West Bengal. The Senate is divided into seven Faculties, namely, Arts, Science, Law, Medicine, Engineering, Technology and Veterinary Science.

The Syndicate.—The executive government of the University is vested in the Syndicate, which consists of the Vice-Chancellor as Chairman, the Director of Public Instruction, West Bengal, for the time being, as *ex-officio* Member, and fifteen Fellows who are elected for a period of one year partly by the Senate and partly by the Faculties as follows:—Four by the Senate; four, by the Faculty of Arts; two, by the Faculty of Science; two, by the Faculty of Law; two, by the Faculty of Medicine; one, by the Faculty of Engineering. Of the fifteen Members, at least seven shall be either Heads of, or Professors in, Colleges affiliated to the University, and of these Syndics, at least, two shall be elected by the Senate, at least five by the various Faculties as follows:—three, by the Faculty of Arts; one, by the Faculty of Science; one, by the Faculty of Medicine.

The Councils of Post-graduate Teaching.—Post-graduate teaching in Calcutta is conducted only in the name and under the control of the University. For this purpose, three councils have been constituted, namely, the Council of Post-Graduate Teaching in Arts, the Council of Post-Graduate Teaching in Science, and the Council of Post-Graduate Teaching in Technology.

Total number of students in the University and affiliated Colleges (as on 31st March 1952):—

Affiliated Colleges.

Arts	20,946	(including 4,914 women)
Science	26,691	(„ 1,096 „)
Professional	11,682	(„ 420 „)
Total	59,319	(including 6,430 women)

University.

Arts	1,123	(including 368 women)
Professional	751	„ 62 „)
Research	18	„ 3 „)
Total	1,892	(including 433 „)
Science	358	„ 68 „)
Technological	190	„ no „)
Research	31	„ no „)
Total	579	(including 68 „)
Grand Total	61,790	(including 6,931 women)

Number of Successful Candidates in the Different Examinations

The following shows the number of Successful Candidates at the different examinations during the year 1951 :—

Matriculation	..	..	..	..	..	15,357
I.A. (With Compartmental)	..	..	..	..	..	3,622
I.Sc.	Do.	..	..	..	..	4,922
I.Sc. (Ag.)	..	..	..	..	..	49
B.A.	Do.	..	..	..	..	1,114
B.Sc.	Do.	..	..	..	..	1,496
M.A.	..	..	..	..	..	656
M.Sc.	..	..	..	..	..	222
B.Com. (With Compartmental)	..	..	..	..	..	1,203
B.T.	Do.	..	..	..	..	291
Teachership (Arts Appreciation)	..	..	..	..	..	3
English Teachership	..	..	..	..	..	Nil
Diploma in Domestic Science	..	..	..	..	..	24
Diploma in Social Work	..	..	..	..	..	57
Diploma in Spoken English	..	..	..	..	..	3
Diploma in Soap Technology	..	..	..	..	..	2
Diploma in Librarianship	..	..	..	..	..	4
Certificate in Tanning	..	..	..	..	..	3
Certificate in Languages	..	..	..	..	..	19
Preliminary Law	..	..	..	..	..	321
Intermediate Law	..	..	..	..	..	299
Final Law	..	..	..	..	..	175
LL.M.	..	..	..	..	..	Nil
B.E. (Part I)	..	..	..	..	..	251
B.E. (Part II)	..	..	..	..	..	236
Bachelor of Architecture (Part I)	..	..	..	..	..	19
Bachelor of Architecture (Part II)	..	..	..	..	..	9
Diploma in Town and Regional Planning	..	..	..	..	..	3
M.E. (Public Health)	..	..	..	..	..	7
First M.B. (B.S.)	..	..	..	..	..	484
Final M.B., B.S. Part I (B)	..	..	..	..	..	319
Do.	..	..	..	..	..	189
D.P.H. (Part I)	..	..	..	..	..	32
D.P.H. (Part II)	..	..	..	..	..	51
Diploma in Maternity and Child Welfare	..	..	..	..	..	1
Diploma in Obstetrics and Gynaecology	..	..	..	..	..	18
Diploma in Ophthalmic Medicine and Surgery (Part I)	..	..	..	..	..	12
Do. (Part II)	..	..	..	..	..	4
Certificate in Applied Psychology	..	..	..	..	..	3
Diploma in Dietetics	..	..	..	..	..	9

Diploma in Tuberculous Diseases	..	..	..	8
Diploma in Industrial Health (Part I)	..	..	..	10
Do. Do. (Part II)	..	..	..	7

Library, Museums, Laboratories, etc.

The University Library is under the management of the Library Executive Committee, subject to the general control of the Syndicate. It is for the use of Resident Fellows, Registered Graduates, Research Scholars, Professors, Readers, Lecturers and Students of Post-graduate and Under-Graduate classes of this University, who are entitled to take out books from the Library. Every facility is given to students and research scholars to utilise the Library for the purpose of study and research from 7 A.M., to 9 P.M., daily, excepting Sundays when the Library remains open from 12 noon to 4 P.M. The Library remains closed on authorised holidays. Other persons may also use the Library with the permission of the Library Committee on payment of a small fee of Rs. 2-8-0 for every six months and a deposit of Rs. 10 only, but they are not allowed to take out books from the Library for home use. The Central Library of the University contains about 249,109 volumes, including pamphlets, periodicals, a fairly large collection of Bengali, Sanskrit and Tibetan Manuscripts, Chinese, Japanese and Spanish printed books, Rotograph copies of Persian and Arabic Manuscripts but excluding volumes belonging to other Libraries attached to the University, *viz.*, Law College Library and Libraries of the different Departments of Science. The Departmental Science Libraries numbering thirteen are controlled directly by the Central Library while the Law College Library has its own committee.

The catalogue of the University Central Library is in cards ; books are arranged according to Dewey's Decimal System of classification. Budget grant for the financial year 1952-53 was Rs. 1,52,184 ; the amount provided for acquisition of books and periodicals, Rs. 66,150.

There are Laboratories attached to each department of the University College of Science and also Museums attached to the Departments of Anthropology, Commerce, and Ancient Indian History and Culture.

Asutosh Museum of Indian Art

Named after the late Sir Asutosh Mookerjee, the Asutosh Museum of Indian Art, the first University Museum in India, was

opened in 1937. The museum at present has more than 8,000 rare and valuable exhibits, including a representative coin collection and a folk-art gallery, besides sculptures, paintings, terracottas, textiles, metal and ivory objects, etc., illustrating the different phases of Indian Art, specially of eastern India and Bengal, from 2nd Century B.C. to modern times. The museum may be considered as the nucleus of a Regional Museum for Eastern India. Princely gifts, excavation and exploration by teachers and students have greatly enriched the Museum Collections.

The activities of the museum include :—

- (1) Regular series of lectures for students from schools and colleges ;
- (2) Popular Lectures for the general public ;
- (3) Guide-lecture scheme to enable visitors to enjoy their contact with works of art under expert guidance ;
- (4) Research facilities for scholars in art and archaeology ;
- (5) Training of Art Teachers in theory, criticism and appreciation of art, through a Short Term Teachers' Training Certificate Course in Art Appreciation ;
- (6) Exploration and survey of important archaeological sites in Bengal ;
- (7) Comprehensive archaeological excavation of historic sites. Work has already been done at Bangarh, Dt. Dinajpur and at Nanoor, Dt. Birbhum ;
- (8) Holding of exhibitions on diverse aspects of ancient and modern art ;
- (9) Publication of picture post-cards, hand-books, memoirs, etc. ;
- (10) Cleaning and preservation of exhibits in a Research Laboratory.

Scholarships and Medals

A large number of Scholarships, Medals and Prizes are awarded every year. For the encouragement of Post-Graduate

study in Arts and Science, there are twelve University scholarships of Rs. 32 per month each which are awarded to the students who have done best at the B.A., B.Sc., or B.Com. Examination. Special Scholarships are awarded for study outside India. The University offers scholarships varying between Rs. 75 and Rs. 150 each per mensem to carry on research.

Provision for Research

There is a large Post-Graduate Department which also helps candidates desirous of attaining Research Degrees. A large number of Fellowships and Research Scholarships are awarded by the University to encourage original research.

Under the Government of India Cultural Relations scheme foreign scholars are given facilities for studies in any Faculty of this University, the expenses being borne by the Government of India.

There is one endowment under the terms of which a graduate of a foreign University may be invited to study "aspects of Hindu Civilisation and Culture". He is required to study for one year and the remuneration is Rs. 5,000 per annum.

University Extension Lectures

With a view to promoting a desire for original investigation and research among the advanced students of the University and members of the outside public interested in education, eminent scholars from India and abroad are, from time to time, invited by the University to deliver courses of lectures on subjects in which they have specialized. These extension lectures are in addition to the lectures by the Special University Readers who are appointed under Chapter X of the Regulations with the sanction of the Government, the aim of these two kinds of lectures being almost identical. These lectures, after delivery, are printed and published by the University.

University Publications

The University has an up-to-date Press of its own and it undertakes the publication of specialised lectures delivered by the University Professors, Lecturers and Readers, theses of successful candidates for Doctorate degrees research scholarships and prizes,

and results of research work carried on by University Professors, Lecturers and Research Assistants, besides a number of periodicals, annuals and serials. A large number of standard works on Indian Culture, Language and Literature, Art and Iconography, History and Sociology (including Ancient Indian History and Culture), Philosophy and Religion, Economics, Politics, Law, Mathematics and Science have also been published. A descriptive catalogue of these publications may be obtained from the Registrar.

The total number of University publications is about 550.

Residence and Cost of Living

Under Chapter XXIV of the University Regulations the following classes of lodgings are approved:—

- (a) Collegiate Hostels.
- (b) Non-Collegiate Hostels under external management.
- (c) Messes, attached or unattached.
- (d) Private Lodgings.

Licenses to Hostels under class (a) are granted by the Syndicate, while licenses to remaining three classes of lodgings are granted by the Students' Residence Committee—a subordinate body under the Syndicate, which consists of six members appointed annually from among the Fellows of the Senate. Students who do not live with their parents or other *bona fide* guardians approved by the Principals, have to reside in either of the four classes of lodgings mentioned above. The cost of living or messing and seat rent varies in different Hostels and Messes. The messing charge is about Rs. 40 to Rs. 45 per month including establishment. Seat rent varies from Rs. 7 to Rs. 12 per month including electric charges and medical attendance. Admission to the Hostels or Messes is understood to be for the full session of 10 months.

University Provident Fund

Detailed rules have been framed for the "Calcutta University Provident Fund", to which the provisions of the Provident Fund Act have been extended by the Government of India. Membership which is compulsory for all new entrants is open to all whole-time teachers, officers, assistants and members of the lower subordinate staff. Each member contributes either one-twelfth or one-sixteenth of his monthly salary and the Fund is

supplemented by an equal amount from the University. For employees who have joined from 1st June, 1938, the rate is $6\frac{1}{4}$ per cent.

Women's Education

The following Institutions impart instruction to women students only :—

1. Bethune College, Calcutta.
2. Loreto House, Calcutta.
3. Victoria Institution, Calcutta.
4. Gokhale Memorial Girls' College, Calcutta.
5. South Calcutta Girls' College, Calcutta.
6. Lady Brabourne College, Calcutta.
7. Women's College, Calcutta.
8. Ballygunj Muralidhar Girls' College.
9. Berhampore Girls' College, Murshidabad.
10. Women's Christian College, Calcutta.
11. Girls' College, Howrah.
12. Asansol Manimala Girls' College.
13. Prasannader Balika Mahavidyalaya, Jalpaiguri.
14. Hooghly Women's College.

The following Institutions have made special arrangements for imparting instruction to women students separately :—

City College, Calcutta.

Asutosh College, Calcutta.

Surendranath College, Calcutta.

Scottish Church College, Calcutta (for B. T. only).

Dum Dum Motijheel College, Calcutta.

Maharaja Manindra Chandra College, Calcutta.

In the Medical Colleges and other institutions, lady students are allowed to prosecute their studies if they so desire along with men students.

Students' Welfare Scheme

A special Committee consisting of prominent medical men,

principals of colleges and others interested in health welfare work, called the Students' Welfare Committee, is appointed annually by the Senate to report on the state of health of the students attending the colleges in Calcutta, to consider all questions regarding the health and physical instruction of students and to recommend to the Senate steps which should be taken to improve the health of the student population as a whole.

The work of the Committee can broadly be divided into two sub-heads :—

- (1) Medical Examination.
- (2) After-Care Work.

There is an office and a medical staff attached to the Committee.

I. Medical Examination.—The medical staff attached to the Committee—five medical practitioners—examine the health of all first-year students of some of the colleges in and around Calcutta every year. Each student examined is supplied with a copy of the findings immediately after his health examination. Further shortly after the completion of the examination, a report on health of the students is forwarded to the institution concerned. This report contains lists of students who are found to be defective, with the defects and recommendations for their correction and improvement stated against their names and roll numbers. The Committee publishes an annual report on the health of students. A lady medical examiner has been specially appointed to examine the health of lady students and to keep under observation those who are suffering from grave defects.

II. After-Care Work.—Two After-Care officers have been appointed to follow up and to keep under observation students suffering from grave defects. An eye clinic is attached to the Department for the convenience of students.

A students' Infirmary, consisting of 10 beds, is maintained by arrangement with the Hospital authorities at the R. G. Kar Medical College Hospitals, Belgachia, for treatment of students free of all costs.

The Secretary re-examines all cases found to be suffering from respiratory and circulatory diseases and extreme cases of malnutrition and keeps them under observation. Arrangements

are made with firms to supply students with glasses at concession rates. Needy students are provided with glasses free of cost. Arrangements are also made for treatment of dental affections at concession rates for students. Illustrated lectures on health matters are delivered in the different colleges periodically and health literature and pamphlets are widely distributed to students.

Sports Board

For improving the standard of sports and games and for better organisation of inter-collegiate activities a separate Sports Board was created in 1949. The Board consists of 24 persons of whom the Chancellor, the Vice-Chancellor and the Registrar are respectively *ex-officio* President, Vice-President and General Secretary of the Board. A paid whole-time officer is appointed by the Syndicate to act as the Joint Secretary. The members are partly elected and partly nominated from among affiliated or other institutions interested in sports and games.

The Board (i) organises, controls, manages and supervises Inter-Collegiate Sports, Games, Rowing Tournaments and Activities amongst the students of the University and Colleges and Institutions affiliated thereto, (ii) undertakes, controls and conducts the Inter-University competitions, (iii) organises courses of training in Games and Sports and conducts Tests of physical efficiency, (iv) provides for the students of the Colleges and Institutions affiliated to the Board, Grounds and Buildings convenient, desirable or necessary for Games and Sports generally, whether indoor or outdoor, and all things commonly or conveniently used therewith and particularly controls, maintains manages the Calcutta University Rowing Club at the Lakes and the University Grounds at the Maidan, (v) awards at its discretion Trophies, Cups, Certificates and 'Blues' or any other award on the results of the different Tournaments and competitions, (vi) and generally takes necessary steps to encourage all sporting, athletic and physical activities amongst students of the University and all Colleges and Institutions affiliated thereto.

The activities of the Board are suitably spread out throughout the year with the exception of 2 months. May and June, covered by the Summer Vacation.

Teachers' Training Department

The Department holds classes for training students for the B.T. Degree examination and also for M.A. or M.Sc. in Education.

The Department also organizes from time to time lectures by eminent educationists, of general and public interest, on education and allied subjects, and it has undertaken research work on different aspects of education, as well as the publication of bulletins on educational matters.

Appointments and Information Board

An Appointments and Information Board was established by the Senate on the 23rd January 1937. The Board is constituted periodically by the Syndicate, usually at the end of two years. The functions of the Board are as follows:—

- (1) To select apprentices for practical training, both technical and non-technical, in firms and industrial concerns.
- (2) To recommend to firms names of suitable candidates for appointment when requested.
- (3) To conduct examinations on behalf of employers for recruitment.
- (4) To remain generally in touch with employers, to collect statistics, regarding possible openings and to supply information to graduates and undergraduates regarding the careers open to them.
- (5) To advise students preparing for various Service Examinations, to supply them with particulars of such examinations, and, if necessary, to organise their training.
- (6) To organise, from time to time, courses of lectures to be delivered by well-known businessmen of the city having wide practical experience, on different industrial and commercial subjects.
- (7) To advise students regarding their careers, and to secure facilities for their admission into institutions where necessary.
- (8) To study different fields of employment, to suggest new avenues and to organise courses where necessary.

The Board maintains a Register of suitable candidates (only graduates and undergraduates of the Calcutta University), with

details of their qualifications and careers, seeking employment through it. For this purpose, it works in close co-operation with the institutions affiliated to the University. In order to enable students outside Calcutta to take advantage of the facilities offered by the Board, it has set up an Advisory Committee in every College. It is always in close touch with different Chambers of Commerce and Trades Associations of Calcutta and their members, from whom valuable support is received. The Board is also consulted by some of the Government departments and quasi-Government institutions.

The Board is responsible for organising and conducting the Diploma Course in Social Work for giving training to Labour Welfare Officers employed by both Central and State Governments and Industries.

Main Sources of income (Actuals of 1950-51)

	Rs.
From Fees	34,19,351
From Endowments	2,39,276
From Fees from Post-Graduate students	4,41,013
From Fees from Law College ..	1,57,418
From West Bengal Govt. grant ..	15,25,000
	<hr/>
	57,82,058
Proportion of Govt. grant ..	26.3 per cent.

Admission to the University

A candidate seeking admission to the University must have passed the Matriculation Examination* of the Calcutta University or the School Final Examination conducted by the Board of Secondary Education, West Bengal, or an examination accepted as equivalent thereto. The University confers in Arts the Degrees of B.A. (Pass and Honours), M.A., D.Phil., and D.Litt.; in Science, B.Sc. (Pass and Honours), B.Sc. (Tech.), M.Sc., M.Sc.(Tech.), D.Phil., and D.Sc. The Professional Degrees are B.Com., B.T., LL.B., LL.M., LL.D., M.B.B.S., M.D., M.S., M.O., D.Sc. (Public Health), Bachelor of Nursing, B.D.S., B.E., M.E. (Public Health), Bachelor of Architecture,

*The School Examination has taken the place of Matriculation Examination from 1952. The control so long exercised by the University over High Schools has now been vested in a Board.

Master of Architecture, Master of Planning and D.Sc. (Engineering). In addition to the above, the following Diplomas are also granted : Diploma in Public Health, Diploma in Ophthalmic Medicine and Surgery, Diploma in Spoken English, Diploma in Gynaecology and Obstetrics, Diploma in Maternity and Child Welfare, Diploma in Tuberculous Diseases, Diploma in Dietetics, Diploma in Librarianship, Diploma in Journalism, Diploma in Soap Technology, Diploma in Domestic Science Training, Diploma in Town and Regional Planning, Diploma in Social Work (Labour Welfare), Diploma in Languages, Diploma in Child Health, Diploma in Industrial Health and Diploma in Medical Radiology and Electrology. Diploma courses in Tropical Medicine & Hygiene (D.T.M. & H.) and Anaesthesia (D. Anaes) have also been recently started. Provision is made, under conditions, for admission as non-collegiate students of Teachers, Laboratory Assistants, Demonstrators and Librarians of affiliated Colleges. Women candidates can appear at certain University examinations without studying in an affiliated College.

Courses of Study and Degrees

Arts

Intermediate Examination.—A student must have passed the Matriculation or the School Final Examination in order to be admitted to this course of study which extends over a period of two years. The subjects and scheme of examination are as follows : English (three papers), one of the Vernacular Languages (one paper) and three of the following (two papers each) of which two at least must be from Group A :

Group A.—(1) One of the Classical Languages* (2) History, (3) Logic, (4) Mathematics, (5) Elements of Civics and Economics, (6) Commercial Geography, (7) Commercial Arithmetic and Elements of Book-keeping and (8) Junior Military Course.

Group B.—(1) Physics, (2) Chemistry, (3) Geography, (4) Physiology, (5) Botany, (6) Zoology, (7) Geology, (8) Anthropology, (9) Biology and (10) Psychology.

(Practical examination is held in the subjects in Group B.)

Candidates may also be examined, if they so desire, in an additional subject *i.e.*, Geography or any other subject included

*Bengali, Hindi, Assamese and Urdu may be taken up in lieu of a Classical Language under certain conditions.

under Group A, provided they have not already taken the subject. In this optional subject there will be two papers.

The minima for a pass are as follows :—English 36 per cent., Vernacular or in the alternative paper, 36 per cent., and 30 per cent. in each of the remaining subjects; excepting that in each of the subjects in Group B, the pass marks in the two *theoretical* papers is 40 and in the *practical* papers 20, and 36 per cent of the aggregate. Those who obtain 50 per cent or more of the aggregate are placed in the First Division and those who obtain 40 per cent., in the Second Division.

Bachelor of Arts (Pass and Honours).—The course of study extends over a period of two years. A student must have passed the Intermediate Examination in Arts or Science in order to be admitted to this course.

Every candidate is examined in the following subjects :—

1. English—Three papers for Pass. Six Hons. papers.
2. Vernacular—One pass paper.
3. and 4. *Two* of the following subjects, one of which at least must belong to Group A :—

Group A

- I. One of the following languages :—Sanskrit, Pali, Arabic, Persian, Hebrew, Classical Armenian, Greek, Latin, French, German, Italian, Syriac; or one of the following vernaculars (pass or honours) : Bengali, Assamese, Hindi or Urdu—three pass papers and six Honours papers in each of these subjects.
- II. History.
- II-A. Indo-Islamic and World History.
- II-B. Islamic History and Culture.
- II-C. Ancient Indian and World History.
- III. Political Economy and Political Philosophy.
- IV. Mental and Moral Philosophy.
- V. Mathematics.
- VI. Linguistics.
- VII. Education.
- VIII. Senior Military Course.

(The syllabus of Mathematics in the Honours Course includes study of Astronomy. The Course in Astronomy includes practical training in the subject.)

Three Pass papers and Six Honours papers in each of the subjects.

No candidate will be allowed to take up more than one subject among II, II-A, II-B and II-C.

No candidate will be allowed to take up Mental and Moral Philosophy unless he has passed the Intermediate Examination in Logic and no candidate will be allowed to take up this subject along with Psychology.

Group B

- I. Physics.
- II. Chemistry.
- III. Physiology.
- IV. Botany.
- V. Zoology.
- VI. Anthropology.
- VII. Psychology.
- VIII. Geography.
- IX. Statistics.
- X. Geology.

In the Pass course, two Theoretical papers and one Practical paper and in the Honours course four Theoretical papers and two Practical papers in each of these subjects.

No candidate will be allowed to take up any subject in Group B or Mathematics, who has not taken up the corresponding subjects at the Intermediate Examination. If, however, a candidate has passed the Intermediate Examination taking up Psychology, Physiology, Biology or Physics, he may take up Psychology. No candidate will be allowed to take Botany if he has not passed the Intermediate Examination with Botany or Biology. No candidate shall be allowed to take up Statistics unless he has passed the Intermediate Examination in Mathematics.

The maximum number of marks for each paper is 100.

1. A candidate must obtain, in order to pass, 33 per cent marks.

2. If a candidate takes up the Pass course in four subjects, he must, in order to pass the B.A. Examination, pass in each subject, and obtain 360 marks in the aggregate. If he passes and obtains 500 marks in the aggregate, he shall be declared to have passed with distinction.

3. If a candidate takes up the Pass course in three subjects, and the Honours course in one subject, he must, in order to pass

the B.A. Examination, pass in each subject, and obtain 468 marks in the aggregate. If he passes and also qualifies for Honours in his Honours subject, he shall be declared to have obtained Second Class Honours in that subject. If he passes, qualifies for Honours in his Honours subject, and obtains 360 marks in that subject, he shall be declared to have obtained First Class Honours in such subject.

Master of Arts.—The course of study extends over two years and is open to Bachelors of Arts and Commerce. The subjects of study and the scheme of examination are as follows:—

1.	English..	..	..	..	8 papers.
2.	Sanskrit	..	..	..	..
3.	Pali ..	..	..	..	..
4.	Arabic	..	..	..	..
5.	Persian	..	..	..	..
6.	Hebrew	..	..	..	..
7.	Syriac ..	..	..	..	..
8.	Greek ..	..	..	..	..
9.	Latin ..	..	..	..	..
10.	French..	..	..	..	..
11.	German	..	..	..	..
12.	Modern Indian Language	..	..	..	..
13.	Comparative Philology	..	..	..	..
14.	Mental and Moral Philosophy	..	..	..	..
15.	History	..	..	..	..
15a.	Ancient Indian History and Culture	..	..	..	..
16.	Islamic History and Culture	..	..	..	..
17.	Economics	..	..	..	..
17a.	Political Science	..	..	..	..
18.	Commerce	..	..	..	..
19.	Pure Mathematics	..	..	..	..
19a.	Education	..	..	..	..
20.	Applied Mathematics	..	..	..	..
21.	Physics	..	..	..	..
				5	Theoretical papers and 3 days Practical tests.
22.	Chemistry	..	..	..	4 Theoretical papers and 4 Practical papers.
23.	Physiology	..	..	..	5 Theoretical papers and 4 Practical papers.
24.	Botany..	..	..	..	..

- | | | |
|--|---------|---|
| 25. Geology | | 5 Theoretical papers-
and 3 days Practi-
cal tests. |
| 26. Zoology and Comparative Ana-
tomy | | 5 Theoretical papers
and 5 days Practi-
cal tests. |
| 27. Psychology | | 5 Theoretical papers
and Practical Ex-
amination for at
least 4 days. |
| 28. Anthropology | | 5 Theoretical papers
and 3 days Practi-
cal tests. |
| 29. Statistics | | 5 Theoretical papers,
3 Practical papers
(for those who take
up Group B or C)
and 7 Theoretical
papers and 1 Prac-
tical paper (for those
who take up Group
A). |
| 30. Geography | | 6 Theoretical papers
and 2 Practical
papers. |

In order to obtain a pass in subjects 1—20 a candidate must obtain 288 marks in the aggregate. No minimum pass marks are required in each paper but if in any paper a candidate obtains less than 25 marks, those marks are not included in his aggregate. Candidates obtaining 360 marks are placed in the Second Class and those obtaining 480 marks in them in the First Class.

In order to pass in subject 22 a candidate must obtain 132 marks in the aggregate of the four papers (theoretical) and 160 marks in the practical examination. In order to pass in subjects No. 21, 25, 27, and 28, a candidate must obtain 165 marks in the aggregate in the theoretical papers and 120 marks in the Practical Examinations. Marks less than 25 obtained in any theoretical paper in these subjects will not be included

in the aggregate. In order to pass in subjects Nos. 23, 24 and 26, a candidate must obtain 132 marks in the aggregate in the theoretical papers and 160 marks in the practical examination and marks less than 20 obtained in any theoretical papers in these subjects will not be included in the aggregate.

In order to pass in Statistics a candidate must obtain 33% of the aggregate marks prescribed for theoretical papers and 40% of the marks set apart for Practical Examinations. If in any Theoretical Paper a candidate obtains less than 25 marks these marks shall not be included in his aggregate. Candidates obtaining 360 marks shall be placed in the Second Class and those obtaining 480 marks in the First Class.

In order to pass in Geography a candidate must obtain 33 per cent of the marks in theoretical papers and 40 per cent of the marks in practical examinations. Less than 25 marks obtained in the theoretical paper will not be included in the aggregate. Candidates obtaining 360 marks are placed in the Second Class and those obtaining 480 marks in the First Class.

Degree of Doctor of Philosophy in Arts and Science.—Any Master of Arts or Science may be a candidate after working for two years under a teacher recognised by the University. This is an examination by thesis supplemented by an oral and/or a practical examination.

Degree of Doctor of Literature.—A Master of Arts may be a candidate for the degree, three years after the M.A. Degree. This is an examination by thesis, supplemented in the case of those who passed the M.A. Examination in the Third Class and also in the case of those who passed M.A. examination in the Second Class, if it is necessary by an examination written, oral, or, in subjects which admit of it, practical. On the approval of the Syndicate the Degree of Doctor of Literature is conferred. Any Doctor of Philosophy in Arts may also be a candidate for this Degree.

Diploma in Spoken English.—This is open to all holders of a Bachelor's degree and Licentiates in Teaching, who have received training in elocution for a period of not less than one year under a teacher recognised for the purpose. Candidates are required to undergo a written examination to test the candidate's knowledge of the elements of Phonetics with special reference to the pronunciation of English words and an oral examination to test the candidate's power of elocution and his ability to carry on

an ordinary conversation in English. To obtain a pass, a candidate must get 30 marks in the written examination and 200 marks in the oral examination. Candidates obtaining 300 marks in the aggregate are placed in the First Class.

Diploma in Journalism.—Any candidate who has passed an examination for a Bachelor's degree in any Faculty of this University or of any other recognised University, may be admitted to the examination for the Diploma in Journalism, provided he has prosecuted a regular course of study for two academic years, or such shorter period as may be determined by the Syndicate, in the Journalism Section of the University, and has also undergone a course of practical training in the office of a recognised Newspaper, Periodical or News Agency.

He shall be examined in—

Principles and History of Journalism.

The Making of a Journal.

General Knowledge of Political and Socio-Economic Developments.

General Outline of Constitutional Law and Laws of the Press.

Any one of the following—

(a) Literature and Art.

(b) Scientific and Cultural Trends.

(c) Sports, stage and screen.

(d) Editing of Monthlies and Periodicals.

Also any one following :—

(a) Business of Journalism.

(b) Commercial Journalism.

(c) Art of Advertisement and Layout.

(d) Press and Production.

There shall also be an oral examination of two papers.

Science

Intermediate Examination in Science.—The course of study extends over two years after passing the Matriculation or the School Final examination. The subjects of study and the scheme of examination are as follows :—(1) English (three papers), (2) a Vernacular Language (one paper), (3) Chemistry (two papers), (4) Mathematics or Physics (two papers) and (5) any one of the following (two papers): Mathematics (if not already taken),

Physics (if not already taken), Botany, Zoology, Geology, Geography, Physiology, Biology, Anthropology, Psychology and Junior Military course. Candidates may take an additional subject (two papers), if they so desire, included under 5, provided they have not already taken the subject, or French or German or Art and Architecture.

(Practical examinations are held in the Science subjects.)

For a pass, a candidate must obtain 36 per cent in English, 36 per cent in the Vernacular or the alternative paper in English, 30 per cent in each of the compulsory subjects taken up, and 34 per cent in the aggregate. A candidate is placed in the First Division if he obtains 50 per cent and the candidate who obtains 40 per cent is placed in the Second Division.

Intermediate Examination (Science) in Agriculture.—The course of study extends over two years after passing the Matriculation or equivalent Examination or one year after passing the I.A. or I.Sc. Examination. I.A.'s and I.Sc.'s will be exempted from attendance and examination in the subject or subjects already passed. The subjects of study are as follows:—Group I—Basic Sciences; Group II—Agricultural Economics and Rural Sociology; Group III—Farm Technology and Group IV—Languages. A candidate may take up an additional subject from amongst the following:—

- (i) Agronomy.
- (ii) Horticulture.
- (iii) Dairying.
- (iv) Poultry keeping.
- (v) Fishery.

Bachelor of Science (Pass and Honours).—The course of study extends over two years after the Intermediate Examination and candidates are allowed to study and be examined in any three of the following subjects:—(1) Mathematics, (2) Physics, (3) Chemistry, (4) Botany, (5) Geology, (6) Zoology, (7) Physiology, (8) Psychology, (9) Anthropology, (10) Geography, and (11) Statistics. No student will be permitted to take Mathematics or Geography if he has not taken it up for the Intermediate Examination. No student will be permitted to take up Physics or Chemistry unless he has taken up both Mathematics and Physics at the Intermediate Examination and no student can take up Psychology if he has not taken up Psychology or Physiology or Biology or Physics at the Intermediate Examination.

No student will be allowed to take up Botany if he has not passed the I.Sc. Examination with Botany or Biology. No student will be permitted to take up Statistics if he has not taken up Mathematics at the Intermediate Examination. No student will be allowed to take up Physiology unless he has taken up Physics, Chemistry, Biology, Physiology or Mathematics at the I.Sc. examination. In the Pass course there are three papers in each subject, of which except in Mathematics, two are theoretical and one is practical. For a pass a candidate must obtain $33\frac{1}{3}$ per cent in Mathematics, and 30 per cent in the theoretical papers of any other subject and 40 per cent in the practical papers. The number of papers set for the Honours course is six in Mathematics and four theoretical and two practical in the other subjects. Practical training has been introduced in the course of studies in Astronomy which is included as a subject of study in the syllabus of Mathematics in the Honours course.

To obtain Honours, a candidate must obtain 40 per cent of marks in Mathematics and 40 per cent in the theoretical papers and 40 per cent in practical papers in any other subject. A candidate with an Honours subject obtaining 60 per cent marks in that subject and obtaining pass marks in other subjects will be placed in the First Class.

Master of Science.—It is a two years' course after the B.Sc., examination, and the subjects of study and the scheme of examination are:—One of the following: (1) Pure Mathematics (eight papers), (2) Applied Mathematics, (3) Chemistry, (4) Physics, (5) Botany, (6) Physiology, (7) Zoology and Comparative Anatomy, (8) Geology, (9) Psychology, (10) Anthropology, (11) Statistics, (12) Geography and (13) Education. None but a Bachelor of Teaching or a B.A. with Education as one of his subjects will be allowed to take up Education. Distribution of papers and marks in these subjects is the same as noted in respect of these subjects for the *Master of Arts*.

Doctor of Philosophy in Arts and Science.—For particulars *vide* the same heading under Arts group.

Doctor of Science.—A Master of Science may be a candidate for the degree three years after the M.Sc. Degree. This is an examination by thesis, supplemented in the case of those who have passed the M.Sc. Examination in the Third Class and also in the case of those who passed the M.Sc. Examination in the Second Class if it is necessary, by an examination, written, oral

or practical. On the approval of the Syndicate the Degree of Doctor of Science is conferred.

A Doctor of Philosophy in Science may also be a candidate for this Degree.

Technology

B.Sc. (Tech.).—The subjects for the B.Sc. in Technology are:—

- (1) Textile Technology.
- (2) Leather Technology.
- (3) Jute Technology.

It is a three-year course open to I.Sc. passed candidates with Physics, Chemistry and Mathematics.

The examination shall be held in anyone of the above subjects in two-parts—Part I at the end of the second year and Part II at the end of the third year.

There shall be five theoretical papers and five Practical papers for each of Part I and Part II Examinations. Each theoretical paper will carry 100 marks, and out of 100 marks in each practical paper 40 marks will be set apart for sessional work of a candidate in the Laboratory or Workshop.

40 per cent of marks in the aggregate for the Theoretical papers, 40 per cent of marks in the aggregate in the Practical papers and 50 per cent of the total full marks will ensure a pass.

M.Sc. (Tech.).—The subjects for the M.Sc. (Technology) Examination are—

- (1) Applied Physics.
- (2) Radio Physics and Electronics.
- (3) Applied Chemistry.

Or such other subject or subjects as may be determined by the Syndicate.

It is a three-year post-graduate course open to B.Sc.'s with Physics, Chemistry and Mathematics, preferably with Honours. B.Sc.'s in Technology may be admitted to the examination provided they have prosecuted a regular course of study for two years in an appropriate college or in the post-graduate classes of the

University. The examination shall be held in any one of the above subjects in two parts—Part I at the end of the second year and Part II at the end of the third year.

For Part I there shall be five theoretical papers of 100 marks each and five practical papers of 100 marks each of which 20 marks shall be set apart for sessional work of the candidate.

For Part II there shall be three theoretical papers of 100 marks each of which two shall be set on the special subject a candidate may choose. The practical examination shall relate to the special subject of the candidate and carry 200 marks.

The minimum pass marks are as in B.Sc. (Tech.) Examination.

Certificate in Applied Psychology.—The examination will be held annually. A candidate who has passed the M.A. or M.Sc. Examination in Psychology or B.A. or B.Sc. Examination with Psychology or the B.T. or M.B.B.S. Examination or who has satisfied the Examination Committee of the Council of Post-graduate Teaching in Arts that he has special qualifications for prosecuting the course, will be admitted to examination after prosecuting a regular course of study in Applied Psychology for one year in the Post-graduate Department of the University.

Diploma in Soap Technology.—Every candidate for the Diploma shall satisfy the following conditions:—

(i) That he has passed the examination for the Degree of Bachelor of Science with Mathematics, Physics and Chemistry.

(ii) That he has completed, since passing the aforesaid examination, a regular course of lectures, both theoretical and practical, in the subjects prescribed for the examination, for one academical year, in the University post-graduate classes or in an Institution or Institutions affiliated to, or recognised by, the University for this purpose.

(iii) That he has attended, during the said period of one academical year a Factory or Factories recognised for the purpose, for a minimum period of two months for necessary training.

He shall be examined in—

- (i) Oils, Fats and Waxes.
- (ii) Soaps and Glycerine.

- (iii) Perfumes.
- (iv) Descriptive Engineering.
- (v) Statistics and Costing.

Examinations and Degrees Leading to Professions Commerce:—

Bachelor of Commerce.—The course of study extends over two years after the Intermediate Examination. The subjects of study and the scheme of examination are as follows:—

- (1) English Composition, including essay, précis-writing and drafting of business letters:

Essay—30 marks.

Précis-writing—30 marks.

Drafting of letters—40 marks—1 paper.

- (2) One of the following languages:

Bengali, Assamese, Hindi, Oriya, Urdu, Malayalam, Telugu, Kanarese, Gujrati, Tamil, Japanese, French, German, Italian—1 paper.

- (3) Accountancy—1 paper.

- (4) Commercial Law—1 paper.

Group A.—Papers (5) and (6):

General Economics—1 paper.

Indian Economics—1 paper.

Group B.—Papers (7) and (8):

Business Organization—1 paper.

Commercial Geography—1 paper.

Group C.—Papers (9) and (10):

Any one of the following:—

- (1) Advanced Accountancy—1 paper.
- Auditing—1 paper.

- (2) Trade and Tariff—1 paper.
- Transport—1 paper.

- (3) Banking—1 paper.
- Currency—1 paper.

- (4) Statistics—1 paper.
- Insurance—1 paper.

- (5) Public Administration—1 paper.
Public Finance—1 paper.
- (6) Land Systems—1 paper.
Agricultural Economics—1 paper.
- (7) Economic History—1 paper.
Modern Industrial Organization with special reference
to India—1 paper.

Each paper shall be of three hours' duration and shall carry 100 marks.

In order to pass a candidate must obtain 30 per cent of the marks in each subject or group of subjects and 40 per cent of marks in the aggregate, provided that a candidate who takes up an Indian language must obtain 40 per cent of the marks in that subject. In order to be placed in the First Class, he must obtain 60 per cent of the marks in the aggregate.

Tanning

Certificate in Tanning.—It is a three years' course and any undergraduate of the University who has passed the Intermediate Examination with Physics, Chemistry and Mathematics and preferably with Botany or Zoology or Biology as an additional subject is eligible for admission to the course. The subjects for the examination are: (i) Principles and Methods of Leather Manufacture (2 theoretical and 1 practical paper); (ii) Analytical Chemistry of Leather Manufacture (1 theoretical and 1 practical paper); (iii) Statistics and Costing (half paper); (iv) Elementary Microscopy and Bacteriology (half theoretical and half practical paper); (v) Leather Trades Engineering (1 theoretical and 1 practical paper); and in order to pass the examination, a candidate must obtain 33 per cent of the marks in each subject. Candidates obtaining 45 per cent of the aggregate marks shall be placed in the Second Class and those obtaining 60 per cent, in the First Class.

Arrangements are being made to start a Leather Technology Course upto the B.Sc. standard.

Teaching

Licentiate in Teaching.—Any candidate may be admitted to the Examination not less than one year after passing the Intermediate Examination in Arts or Science provided he has attended

a regular course of lectures on the Arts and Theory of Teaching in a college or colleges affiliated in Teaching and, in addition, has undergone a course of practical training in practical skill in teaching. There shall be a written examination in (1) Principles of Education, (2) Methods of Teaching and School Administration, (3) History, (4) English Composition, and a practical examination for testing skill in teaching any three of the following subjects:—(i) English, (ii) Vernacular, (iii) A Classical or a Modern Language, (iv) History, (v) Geography, (vi) Mathematics, (vii) Science of Nature Study, (viii) Hygiene, (ix) Art or Manual work, (x) the Kindergarten System, (xi) Method of Teaching and testing the Primary School subjects, Methods of Inspection, (xii) Music. For the written examination there shall be one paper in each of (iii) and (iv) and two papers in (ii). Each paper will carry 100 marks and 300 marks are assigned to the practical examination.

Bachelor of Teaching.—Any candidate may be admitted to the Examination not less than one year after passing the B.A., B.Com. or B.Sc. Examination, provided he has attended a regular course of lectures on the Art, Theory and History of Teaching in a college or colleges affiliated in Teaching and has, in addition, undergone a course of practical training in practical skill in Teaching.

Any candidate who has passed the examination for the Licentiate in Teaching and has also graduated in Arts or in Science or in Commerce, may be admitted to this Examination without compliance with the conditions, provided that a candidate who is a Licentiate in Teaching and who has served in a recognized school for at least seven years, may appear at the Examination for the Degree of Bachelor of Teaching without having passed the B.A., B. Com. or B.Sc. Examination and without compliance with the conditions laid down in the above paragraph.

Any graduate teacher of a recognized school may also appear at the B.T. Examination as a non-Collegiate student, he has served as a teacher for at least two years and has graduated with Honours or has obtained the degree of M.A. or M.Sc. in the First or the Second Class, or has passed the University Teachers' Training Certificate Examination with distinction or the school in which he serves is specially approved for the purpose.

Candidates will be examined in (1) Principles of Education,

including Educational Psychology, (2) History of Education, (3) General Methods, School Organization and School Hygiene and (4) Contents and methods of teaching any three school subjects from the following list, Geography being considered as equivalent to two subjects (i) English, (ii) A Modern Indian Language—Bengali or Hindi, or Urdu or Assamese, (iii) a Classical Language, (iv) a Modern European Language, (v) History, (vi) Geography, (vii) Hygiene, (viii) Mathematics (ix) Arts and Crafts, (x) Music, (xi) Physical Sciences, (xii) Biological Sciences (Physics, Chemistry and Astronomy), (xiii) Biological Sciences (Botany, Zoology, Physiology) and Geology, (xiv) Primary and Infant School Subjects; (5) Essay and Composition in one of the Modern Indian Languages (Bengali or Hindi or Urdu or Assamese). The candidate may, if he so desires, be also examined in one of the following subjects (i) Mental and Educational measurements, (ii) Social and Abnormal Psychology applied to Education, (iii) Mental Hygiene and Child Guidance, (iv) Method and Organization in Nursery Schools, Kindergarten and Montessori Schools (v) Comparative Education with reference to selected countries in Europe and America, and (vi) Education of Handicapped children. Each theoretical paper shall carry 100 marks; and 250 marks shall be allotted for the practical examination.

In order to pass a candidate should obtain 40 per cent of the marks in each of the written subjects and also in the practical examination. Candidates obtaining 540 marks shall be declared to have obtained a First Class and those obtaining 360 marks shall be declared to have obtained a Second Class.

English Teachership Examination.—This is examination is held for granting certificates to candidates as competent to teach English in schools recognized by the University. The minimum qualification for admission to the Examination is a pass at the Intermediate Examination and service as teacher for at least one year prior to the Examination in a recognised school. Candidates who are graduates will be exempted from the requirement of one year's service as teachers. The examination shall be Written, Oral and Practical and shall be conducted on the lines of a syllabus to be drawn up by the Syndicate on the joint recommendation of the Boards of Studies in English and Teaching. The candidate must undergo a special course of training for at least eight weeks, organized or recognized by the University for the purpose of the examination. In order to pass in the written examination a candidate must obtain at least 60 marks out of 150 marks allotted for the exami-

nation, and 60 marks out of 150 marks in the oral examination and 100 marks out of 200 marks in the practical examination. In certain cases exemption is granted from the written examination.

Teachers' Training Certificate Examinations.—There are 4 Categories of examinations under this: (A) Teachers' Training Certificate (General), (B) Teachers' Training Certificate (Science), (C) Teachers' Training Certificate (Geography), (D) Teachers' Training Certificate (Art Appreciation). At present there is no arrangement for teaching students and holding examinations for (A), (B) and (C).

Teachers' Training Certificate Examination (Art Appreciation).—The Examination is open to any Matriculate who has served as a teacher of Drawing in a recognised school for at least one year and has undergone a short course of training for at least three months at the University. A candidate who has passed the Final Examination of any recognised school of Art will be allowed to appear without being required to serve as a teacher.

There shall be three theoretical papers of 100 marks each on the following subjects:—

- (i) (a) General Principles of Art.
- (b) Principles of Indian Art.

- (ii) (a) Indian Sculpture.
- (b) Indian Painting.

- (iii) (a) Architecture.
- (b) Indian Art.

There shall be a practical examination with 100 marks assigned to it of which 50 marks will be set apart for practice teaching and class work.

Librarianship

Diploma in Librarianship—Any candidate who has passed a degree examination in this University and prosecuted thereafter a course of study for not less than one year in the Librarianship Training Class organized by the University may be admitted to the examination. The training is both theoretical and practical. The examination will be held in the following subjects: (i) Classification, (ii) Cataloguing, (iii) Library organization and administration, (iv) Bibliography and Books election, (v)

Reference work, (vi) General Knowledge, (vii) Languages—two of the following languages other than the candidate's mother-tongue—not more than one from one group—(A) French, German; (B) Bengali, Hindi, Urdu, Assamese; (C) Sanskrit, Arabic, Persian, Latin, Greek.

In order to pass, a candidate should obtain 40 per cent in each of the four subjects for the written examination and also in the practical examination. Candidates obtaining 60 per cent of the total marks will be declared to have obtained a First Class.

Domestic Science

Diploma in Domestic Science Training.—A candidate who has passed the Intermediate Examination with Chemistry and has prosecuted a course of study in an institution recognised for the purpose, or a candidate who has passed the Intermediate Examination without Chemistry and has served for not less than two years as a *bona fide* teacher in a recognised or approved institution is eligible for admission to the Examination if he has obtained a Diploma or a Certificate recognised by the University in any of the following subjects, *viz.*—(i) Teacher's Training, (ii) First Aid, (iii) Home Nursing, (iv) Needle-Work, (v) Cookery, (vi) Arts or Crafts or any other subject that may be regarded by the Syndicate as equivalent thereto. The course of studies is—*Theoretical*:—(i) Theory and Practice of Teaching including school organisation (one paper), (ii) Home Life and Child Psychology (one paper), (iii) Hygiene and Home Nursing (one paper), (iv) Home Organisation, House Craft and Laundry work (one paper), Cookery (one-half paper), Needlework and Designing (one-half paper). There is a practical examination in each of the subjects under (iv). Each paper is of 100 marks and each half-paper 50 marks. A candidate will be required to prepare, for presentation to the examiners, before the final Practical examination, full teaching notes in each of the subjects under (iv). In order to pass a candidate must obtain 40 per cent of the marks in each of the theoretical subjects and also in each of the subjects for the practical examination. Candidates obtaining 420 marks shall be declared to have passed with Distinction and those obtaining 280 marks shall be declared to have passed.

Social Work

Diploma in Social Work (Labour Welfare).—Any candidate who has passed an examination for a Bachelor's Degree in any

Faculty of this University or who is accepted by the Social Work Committee on the ground that he has worked for at least a period of one year as Labour Welfare Officer in approved institutions, associations or firms employing labour, may be admitted to the examination for the Diploma in Social Work, provided he has prosecuted a regular course of study for one academic year or such shorter period as may be determined by the Syndicate and has undergone a practical training in an industrial area or areas or labour welfare centres.

He shall be examined in (i) Sociology, (ii) Applied Economics, (iii) Laws relating to Industries, (iv) Statistics, (v) Social and Industrial Psychology and (vi) Public Health Administration and Food and Nutrition.

The written examination shall consist of six papers and the oral examination, of four papers.

In order to pass a candidate must obtain 40 per cent of marks in each paper and 50 per cent of marks in the aggregate. Candidates obtaining 60 per cent of the marks in the aggregate shall be placed in the First Class; others in the Second Class.

Languages

Certificate in Language.*—The examination is open to any graduate of any Faculty who has prosecuted a regular course of study for one year after graduation in the University or in an Institution recognised by the University.

A candidate has to choose and offer one of the undermentioned languages for the examination—

- (1) French, (2) German, (3) Russian, (4) Chinese, (5) Tibetan, (6) Spanish, (7) Portuguese, (8) Italian, (9) Persian, (10) Arabic, (11) Burmese, (12) Japanese, (13) Indonesian (Malay), (14) Any one of the following Modern Indian Languages for those whose mother-tongue is not anyone of these:—

- (a) Bengali, (b) Hindi, (c) Urdu.

The examination shall be written and oral. The written portion will have two papers of 100 marks each and Oral will carry

*At present only French, German, Russian, Chinese, Tibetan and Hindi are taught in the University classes.

100 marks. The minimum pass marks are 45 per cent of the total marks. 75 per cent is the minimum for a First Class and 60 for a Second Class.

*Diploma in Language.**—Any graduate of any Faculty after having passed the Certificate Examination in a Language and on completion of a regular course of studies for one year in one of the subjects may take this examination. The Languages are the same as given above.

The Examination shall be written and oral. The Written portion will comprise 3 papers of 100 marks each and the oral will carry 200 marks.

The minimum for a Pass is 45 per cent, for a First Class 75 per cent, and for a Second Class 60 per cent of the total marks.

Law

Bachelor of Laws.—It is a three years' course and graduates in Arts, Science, Commerce, Medicine and Engineering are eligible for admission to this course of study and have to pass in succession (1) Preliminary Examination, (2) an Intermediate Examination, and (3) a Final Examination. In all these examinations, there may, in addition to the written examination, be an Oral test. The subjects of study and the scheme of examination are as follows:—
Preliminary Examination: (1) Jurisprudence (one paper), (2) Roman Law (one paper), (3) Hindu Law (one paper), and (4) Constitutional Law (one paper). *The Intermediate Examination:* (1) Muhammadan Law and Law relating to persons (one paper), (2) The Law relating to Property, including Law of Transfer, *inter vivos* (one paper), (3) and (4) Principles of English Law of Real Property and Law of Interstate and Testamentary Succession (one paper), and (5) The Law of Contracts and Torts (one paper). *The Final Examination:* (1) The Law relating to Property, including the Law of Land Tenures, Land revenue and Prescription (one paper), (2) The Principles of Equity, including the Law of Trusts (one paper), (3) The Law of Evidence and the General Principles of Civil Procedure and Limitation (one paper), and (4) The Law of Crimes and the General Principles of Criminal Procedure (one paper).

In order to pass the Preliminary, Intermediate or Final

*At present only French, German, Russian, Chinese, Tibetan and Hindi are taught in the University classes.

Examination, a candidate must obtain 30 per cent in each paper and 50 per cent in the aggregate. A candidate obtaining 67 per cent will be placed in the First Class.

Master of Laws.—Any person who has obtained the Degree of Bachelor of Laws, may offer himself as a candidate for the examination for the Degree of Master of Laws. The subject of study and the scheme of examination are as follows:—A candidate will be examined in the following subjects, besides on oral test if the examiners think it necessary: (1) Hindu Law or Muhammadan Law (one paper), (2) Jurisprudence and Principles of Legislation (one paper), (3) Principles and History of Roman Law (one paper), (4) Private International Law (one paper), (5) and (6) Any two of the following subjects (two papers): (a) Principles of Equity, (b) The Law relating to the Transfer of Immovable Property and the Law of Prescription, (c) The Law relating to Wills, (d) The Law of Contracts and Torts, (e) Principles and History of the Law of Real and Personal Property, (f) Principles and History of the Law of Evidence, and (g) History of English Law.

In order to pass the examination, a candidate must obtain 50 marks in each paper, and to be ranked in the First Class he must obtain 400 marks in the aggregate.

Doctor of Laws.—It is open to all Masters of Laws of this University provided one year has elapsed since they obtained their Masters' Degree. This is an examination by thesis, which may be supplemented by an examination, written, oral, or both, according as the Board of Examiners appointed to report on the merits of the thesis may think fit. If the Syndicate, upon the report, consider the candidate worthy of the Degree of Doctor of Laws, the candidate is admitted to the Degree.

Medicine

The M.B.B.S. course consists of three stages: (i) First M.B.B.S. examination, (ii) Final M.B.B.S. examination, and (iii) Attendance at a recognised hospital for 6 months after Final M.B.B.S. examination for clinical instruction. Qualifications for admission to the course are (a) a pass at the Intermediate Examination in Science with Physics, Chemistry and Biology including Practical Tests and (b) attainment of the age of 17 years on the 31st of December of the year of his admission to the college, if not already attained.

The First M.B.B.S. course consists of not less than two years of study, theoretical and practical, in the following subjects: Part I—Organic and Physical Chemistry, Part II—(i) Anatomy, (ii) Physiology, (iii) Elementary Pharmacology. The examination shall be Written, Oral and Practical. In assessing the marks the Examiners are to take into account duly attested records of work done in the practical classes by the candidate. The Final M.B.B.S. course consists of two parts covering a total period of not less than 3 years after passing the First M.B.B.S. Examination. The two parts consist of: Part I—Group A:—Pathology, Bacteriology and Parasitology. Group B:—Preventive and Social Medicine. Group C:—Forensic and State Medicine.

Part II—Group A—(i) Medicine including Applied Anatomy and Physiology, Clinical Pathology, Children's diseases, Skin diseases and Mental diseases. (ii) Pharmacology and Therapeutics. Group B:—(i) Surgery including Applied Anatomy and physiology, Clinical Pathology, Radiology, Orthopaedics, venereal diseases, Dental diseases and Surgical diseases of infancy and childhood. (ii) Ophthalmology and Diseases of Ear, Nose and Throat. Group C:—Obstetrics and Gynaecology, and Infant Hygiene including Applied Anatomy and Physiology and Clinical Pathology.

The course of instruction after passing the Final M.B.B.S. Examination in Part I and Part II consists in attendance at Practical clinical instruction for a period of six months in the wards of a hospital specially recognized for the purpose. A part not exceeding one month of the post-clinical period should be spent in a hospital for special diseases.

In order to pass the Final M.B.B.S. Examination, a candidate must pass in all groups in both Part I and Part II. A candidate who fails to pass either in Part I or in Part II may be examined in that part and in the group or groups in which he has failed. The examination shall be completed within 19 months from the date of appearing at Part II of the Final M.B.B.S. Examination. After 19 months, a candidate is required to prosecute further studies in all the subjects under Part II for a specified period.

The full marks for each subject and the minimum marks required for passing as are follows:—

CALCUTTA

PART I

	Written, Full marks.	Oral, Full marks.	Written, Pass marks.	Oral, Pass marks.	Written and Oral, Pass marks.	Practical and Clinical, Full marks.	Practical and Clinical, Pass marks.	Total, Full marks.	Total, Pass marks.
Pathology, Bacteriology and Parasitology	100	50	...	...	60	50	25	200	100
Preventive and Social Medicine ...	100	54	40	20	...	...	...	150	75
Forensic and State Medicine ...	100	50	40	20	...	...	...	150	75

PART II

	Written, Full marks.	Oral, Full marks.	Written, Pass marks.	Oral, Pass marks.	Written and Oral, Pass marks.	Practical and Clinical, Full marks.	Practical and Clinical, Pass marks.	Total, Full marks.	ss marks.
Medicine ...	200	100	...	...	120	200	100	500	250
Pharmacology and Therapeutics ...	100	50	40	20	...	...	...	150	75
Surgery ...	200	100	...	...	120	200	100	500	250
Ophthalmology and Diseases of Ear, Nose and Throat ...	100	50	...	...	60	50	25	200	100
Obstetrics and Gynaecology and Infant Hygiene ...	200	100	...	...	120	200	100	500	250

**Condensed Medical Course.*—A condensed M.B.B.S. course has been formulated for the period of war and three years thereafter† for the benefit of the following candidates:—(a) a candidate who holds a License or a Diploma in Medicine by an Examining Body in British India registered under any of the Provincial Medical Council Acts and has passed the Matriculation Examination or an examination equivalent thereto or the Cambridge School Certificate Examination in certain specified subjects, or (b) a candidate who has held a commission as a Medical Officer in H. M. Indian Army and had passed, previous to commencing his study of medicine for the acquisition of qualification registrable under the Provincial Medical Council Acts, an examination of the Matriculation standard with Mathematics. Such candidates may be admitted to the Final M.B.B.S. Examination, if the following conditions are fulfilled:—(i) attended in a College of Medicine affiliated to the M.B.B.S. standard a course of instruction for at least six months in Anatomy Physiology, Materia Medica, Pharmacology including Biochemistry and (ii) attended for a period of at least 24 months, a course of studies in the subjects enumerated in Part I and Part II of Section 3 of the Regulations for the Final M.B.B.S. Examination, provided that a candidate who is a holder of a Diploma under the Provincial Medical Councils Acts after passing medical studies for 5 years will be given concession of six months in the period of about 24 months. This concession will also be granted to Licentiate Officers of the I.A.M.C., who had received 3 months intensive training of the Army Medical Training Centre at Poona and passed the Examination held after the Course. Other provisions of the Final M.B.B.S. Regulations will apply to all these candidates.

Diploma in Public Health.—The course is open to any Bachelor of Medicine or Licentiate in Medicine and Surgery on production of certificates of having, subsequent to passing the M.B.B.S. or L.M.S. Examination—

- (i) attended, during a period of not less than six months, approved courses of instruction in (a) Bacteriology including Immunology and Serology, Filterable Viruses and the Rickettsias, Medical Entomology, Protozoology and Helminthology especially in their relation to diseases of man and to those diseases of the lower animals transmissible to man—this course to

*Some changes in the Regulations relating to this course are awaiting final sanction by Government.

†It has been decided that candidates will be admitted to this course upto the end of April, 1956.

last at least 200 hours ; (b) Public Health, Chemistry and Physiology (Bio-Chemistry and Bio-Physics) applied to Public Health—this course to last at least 160 hours ;

- (ii) been diligently engaged for at least six months in acquiring practical knowledge of the duties (routine and special) of public health administration under the supervision of a recognised Medical Officer of Health of a town or sanitary area of not less than fifty thousand inhabitants, who shall certify that the candidate has received from this officer or from other competent Medical Officer during not less than three hours on each of 60 working days, instruction in these duties (a candidate who produces evidence that he has been in independent sanitary charge of a town or district may under very special circumstances be exempted from this rule) ;
- (iii) attended for three months in the clinical practice of a recognized hospital for infectious diseases and has received therein instruction in the methods of administration (at least 30 days' attendance of not less than two hours each day shall be required) ;
- (iv) received during not less than 80 hours, at an institution or from teachers approved by the University, instructions in the following subjects:—

The Principles of Public Health and Sanitation	...	30	hours
Epidemiology and Vital Statistics	...	20	hours
Sanitary Law and Administration	...	20	hours
Sanitary Construction and Planning	...	10	hours

- (v) practised the medical profession for a continuous period of one year and a half which may include the period of training specified above. Provided that a candidate may appear in Part I (but not in Part II) of the examination on the completion of a year of practice. Provided also that a candidate may not appear in Part II until he has passed in Part I of the Examination.

The subjects of study and the scheme of examination are as follows:—

Part I

- (a) Microbiology including Bacteriology, Immunology and

Serology Filterable Viruses and the Rickettsias, Medical Entomology, Protozoology and Helminthology (one paper).

- (b) Public Health, Chemistry and Physiology (Bio-Chemistry and Bio-Physics) applied to Public Health (one paper).

Part II

- (c) Hygiene and Sanitation including Sanitary Engineering (one paper).

- (d) Epidemiology and Infectious Diseases (one paper).

- (e) Sanitary Law, Vital Statistics and Public Health Administration (one paper).

The examination may be written, oral and practical and shall include Food Inspection and Sanitary Inspection of factories, schools, premises or areas.

In order to pass the examination a candidate must obtain 50 per cent marks in each paper of both parts.

Diploma in Gynaecology and Obstetrics.—The course includes (a) service as a House Surgeon for at least six months in an Obstetrics and Gynaecological Hospital or Ward of a Hospital recognised for the purpose, (b) attendance thereafter, for a period of one year, at 40 lectures and 40 demonstrations in a recognised institution, in (i) Practice of Midwifery (ii) Practice of Gynaecology (iii) Anatomy of Female Pelvis (iv) Elementary Embryology (v) Pathology of Female organs, (vi) Ante-Natal Pathology and (e) performance during this period of not less than six obstetrical operations and conducting of at least two labour cases under the supervision of the Medical Staff of the recognised institution. If the requirement of service as a House Surgeon as in (a) above is not fulfilled the candidate will have to attend lectures and demonstrations in a recognised institution for a further period of six months in the subjects mentioned above. The examination is written, oral and clinical and will be on (1) Obstetrics (one paper) and (2) Gynaecology and Diseases of a newborn Child (one paper). The course is open only to Bachelors of Medicine and Surgery or Licentiates in Medicine and Surgery.

Pass marks are 50 per cent of marks in written and oral portions combined and 50 per cent in the clinical portion.

courses of instruction in (a) Communicable Diseases, (b) Environmental Sanitation (c) Public Health Administration ; (iii) or as an alternative to (ii) obtained the Diploma in Public Health or a qualification recognised as equivalent, (iv) attended for five months prescribed courses of instruction in (a) Industrial law, Labour Relations etc., (b) Industrial Hazards (c) Applied Physiology including Industrial Psychology (d) Occupational Diseases and Industrial Medicine.

The Examination is divided into two parts—Part I will have three Written papers of 50 marks each and will include oral test carrying 100 marks. Part II will comprise the following :—

Industrial Hygiene—divided into 4 groups of 50 marks each, Laboratory Records and Field Reports carrying 100 marks and Oral Examination carrying 100 marks.

40 per cent of the total marks in each of the above and at least 50 per cent of the aggregate will entitle a candidate to a pass.

Bachelor of Dental Surgery.—The entire course is divided into 4 parts as detailed below. Any I.Sc. passed candidate (with Physics, Chemistry and Biology) of at least 17 years who has completed his studies for one academical year in an affiliated College of Dentistry may be admitted to the First Professional Examination. A candidate on passing the First Professional Examination and on completion of one year's course will take the Second Professional Examination, Similarly he will have to appear at the Third Professional and Final Professional Examinations. The Examinations will be Written, Oral and Practical as detailed in the relevant regulations.

Diploma in Medical Radiology and Electrology.—The examination shall be held in 2 parts—Part I having 3 papers and Part II, 5 papers. The Examination shall be Written, Oral and Practical with total full marks of 600 for Part I and 1000 for Part II.

Any M.B.B.S. or L.M.S. having at least two years, Post-Graduate experience, including house appointments for one year and also having thereafter (i) attended, during a period of six months, in a recognised institution—

(a) a course of lectures and practical instruction in Physics and Electronics as applied to medical Radiology ;

(b) a course of lectures, demonstrations, etc., in Pathology and Anatomy in relation to Radiology ;

- (c) an introductory course of clinical instructions in Medical Radiology and Electrology ; and
- (ii) attended, during a period of 18 months,

- (a) a course of lectures, demonstrations and practical instruction in Diagnostic Radiology with clinical practice in the Radiological Department of a recognised Hospital with not less than 500 beds ; and
- (b) a course of lectures, demonstrations and practical instruction in Roentgen and Radium Therapy, etc., may be admitted to the Examination.

Doctor of Medicine, Master of Surgery, Master of Obstetrics.—These are examinations by thesis supplemented by written, oral and practical examinations. They are open to such Bachelors of Medicine and Surgery as fulfil certain specified conditions:

Doctor of Science (Public Health).—This is an examination by thesis supplemented by written examination. The candidate may be required to undergo an oral and practical examination at the discretion of the examiners. It is open to any Bachelor of Medicine and Surgery or Licentiate in Medicine and Surgery who obtains a Diploma in Public Health or passes an examination equivalent to it and fulfils certain other specified conditions.

Intermediate Examination in Nursing.—The course of study extends over two years after passing the Matriculation or equivalent Examination, and is as follows:—

1st year.—Literature, Social Welfare, Psychology, Anatomy and Physiology, Preventive and Social Medicine, Physics and Chemistry, Medicine.

Nursing—Principles of Nursing (History of Nursing, Massage, Medical Nursing).
Practice in Nursing (Medical).

2nd year.—Literature, Sociology, Food Chemistry, Medicine and Surgery, Dietetics and Nutrition, Physiology, Psychiatry.

Nursing—History of Nursing Practice, Practice in Nursing (Medical including Leprosy).

Bachelor of Nursing.—The course of study extends over two

years after passing the Intermediate Examination in Nursing and is as follows:—

3rd year—History, Economics, Child Psychology and Paediatrics, Principles of Public Health Nursing, Bacteriology, Pharmacology.

Nursing—Tuberculosis Nursing, Children's Nursing, Surgical and Infectious Diseases Nursing.

4th year—History, Sociology, Educational Psychology and Principles of Teaching.

Nursing—Principles of Public Health Nursing, Teaching Practice, Midwifery, Obstetrical Nursing, Obstetrical Nursing Practice and Public Health Nursing Practice, Mental Nursing Practice.

Diploma in Dietetics.—The course extends over one year after passing (1) M.B.B.S. (2) B.A. or B.Sc. with Physiology or Chemistry (3) Diploma in Domestic Science or (4) Bachelor of Nursing, and is as follows:—

Written Papers

	Maximum marks.	Pass Marks.
Paper I Science of Nutrition ..	50	25
Paper II Applied Nutrition ..	50	25
Paper III General Dietetics ..	50	25
Paper IV Applied Dietetics ..	50	25

Practicals

Practical examination in Nutrition	100	50
Practical examination in Dietetics	100	50

(Candidates will be required to prepare diets on the advice of physician for a particular disease)

Viva Voce

.. ..	100	50
Total ..	500	250

In order to pass, a candidate must obtain 50 per cent in each of the theoretical and practical subjects.

Engineering

Bachelor of Engineering Part I Any undergraduate or graduate of the University who has passed the Intermediate

Examination with Mathematics, Chemistry and Physics may be admitted to the Examination, provided he has prosecuted a regular course of study in a College of Engineering affiliated to the University for two academic years after passing the Intermediate Examination.

Every candidate for the B.E., Part I Examination shall be examined in the subjects mentioned below:—

- (i) English, Current Orientation and Civics.
- (ii) Engineering Physics (paper).
- (iii) Do. (Sessional and Practical).
- (iv) Engineering Chemistry (paper).
- (v) Do. (Sessional and Practical).
- (vi) Mathematics—paper I.
- (vii) Do. paper II
- (viii) Surveying (paper).
- (ix) Surveying (Sessional and Practical).
- (x) Details of Construction and Estimating.
- (xi) Drawing (paper).
- (xii) Do. (Sessional).
- (xiii) Heat Engines I (paper).
- (xiv) Do. (Sessional).
- (xv) Applied Mechanics I and Graphics (paper).
- (xvi) Do. do. (Sessional).
- (xvii) Electro-Technology (paper).
- (xviii) Do. (Sessional and Practical).
- (xix) Sociology and Industrial Relations.
- (xx) Workshops (Sessional).

In order to pass in Part I, 40% of the full marks (2000) and half of the aggregate of total marks must be obtained.

Part II

Any undergraduate or graduate of the University may be admitted to this examination, provided he has prosecuted a regular course of study in an affiliated College of Engineering for two academic years in the particular branch of the B.E. Part II Examination in which he presents himself for examination after passing the B.E. Part I Examination.

The Examination will be held in the following branches:—

- (a) Civil Engineering.
- (b) Mechanical Engineering.

- (c) Electrical Engineering.
- (d) Metallurgical Engineering.

The subjects prescribed for the B.E. Part II Examination and distribution of marks in the respective branches of Engineering are as follows:—

(A) Civil Engineering

- (i) Economics and Accounts.
- (ii) Applied Mechanics (Strength of Materials).
- (iii) Geodesy (paper).
- (iv) Do. (Sessional and Practical).
- (v) Geology.
- (vi) General Civil Engineering (paper I).
- (vii) Do. (paper II).
- (viii) Structures and Designs (paper I).
- (ix) Do. (paper II).
- (x) Do. (Sessional).
- (xi) Applied Mechanics (Hydraulics).
- (xii) Do. (Sessional).
- (xiii) Planning, Layout and Estimating.
- (xiv) Elective.
- (xv) Project and Thesis (Sessional).

Electives:—

- (a) Railway and Highway Engineering.
- or (b) Sanitary Engineering
- or (c) Irrigation and Flood Control.
- or (d) Water Power Engineering.
- or (e) Advanced Building Construction and Architectural Design.

(B) Mechanical Engineering

- (i) Economics and Accounts
- (ii) Applied Mechanics (Strength of Materials)
- (iii) Metrology
- (iv) Metrology (Sessional and Practical) ..
- (v) Electro-Technology (paper)
- (vi) Electro-Technology (Sessional and Practical)
- (vii) Heat Engines II
- (viii) Heat Engines III
- (ix) Do. (Sessional)

(x)	Applied Mechanics (Theory of Machines).		
(xi)	Do. (Hydraulics)	..	..
(xii)	Do. (Sessional)	..	..
(xiii)	Works Organisation and Management	..	
(xiv)	Workshop Theory	..	..
(xv)	Drawing and Design	..	..
(xvi)	Elective	..	..
(xvii)	Project and Thesis (Sessional)	..	..

Electives :—

- (a) Production Engineering.
 or (b) Machine Tools.
 or (c) Automobile Engineering.
 or (d) Refrigeration and Air-conditioning.

(C) Electrical Engineering

(i)	Economics and Accounts	..	..
(ii)	Applied Mechanics (Strength of Materials)		
(iii)	Heat Engines II (paper)	..	..
(iv)	Do (Sessional)	..	..
(v)	Mathematics	..	..
(vi)	Advanced Electro-Technology	..	..
(vii)	Electrical Machines (paper)	..	..
(viii)	Do (Sessional)	..	..
(ix)	Switchgears and Instruments	..	..
(x)	Switchgears and Instruments (Sessional)		
(xi)	Applied Mechanics (Hydraulics)	..	..
(xii)	Do (Sessional)	..	..
(xiii)	Works Organisation and Management	..	
(xiv)	Transmission and Distribution of Electrical Power	..	..
(xv)	Planning and Design of Power Systems	..	..
(xvi)	Elective	..	..
(xvii)	Project and Thesis (Sessional)	..	..

Electives :—

- (a) Electrical Communication.
 or (b) Electric Traction.
 or (c) Illumination Engineering.
 or (d) Hydro-electric Plants.

(D) Metallurgical Engineering

- (i) Economics and Accounts
 (ii) Refractories, Furnaces and Fuels (paper)

- (iii) Refractories, Furnaces and Fuels (Sessional)
- (iv) Inorganic and Physical Chemistry (paper)
- (v) Do Do (Sessional and Practical)
- (vi) Geology, Mineralogy and Dressing of Materials (paper)
- (vii) Do (Sessional)
- (viii) Electrical Engineering
- (ix) Metallurgy of Iron and Steel
- (x) Metallurgy of non-ferrous Metals
- (xi) Assaying and Metallurgical Analysis (paper)
- (xii) Do (Sessional and Practical)
- (xiii) Works Organisation and Management
- (xiv) Electro-Metallurgy and Mechanical Working and Testing of Metals
- (xv) Do (Sessional)
- (xvi) Metallography Heat Treatment and Pyrometry (paper)
- (xvii) Do (Sessional and Practical)
- (xviii) Elective
- (xix) Project and Thesis (Sessional)

Electives :—

- (a) Advanced Metallurgy of Alloy Steel.
- or (b) Advanced Metallurgy of non-ferrous alloys.
- or (c) X-ray crystallography, and Spectroscopy of metals and alloys.

In order to pass, 40 per cent of marks in each subject and half of the aggregate are required.

Bachelor of Architecture.—Any undergraduate of the University may be admitted to the examination provided he has prosecuted a regular course of study for not less than five academic years in the prescribed subjects in an institution affiliated to the University for the purpose after passing the Intermediate Examination in Science with Physics, Chemistry and Mathematics.

The examination for the Degree of Bachelor of Architecture shall be divided into three parts, *viz.*,

- (i) Part I—Examination to be taken at the end of the First year.

- (ii) Part II—Examination to be taken at the end of the Third year provided the candidate has already passed the Part I Examination.

Part III—Examination to be taken at the end of the Fifth year provided the candidate has already passed the Part II Examination.

Master of Architecture.—Any candidate who has passed the Degree of Bachelor of Architecture not less than two years previously may offer himself as a candidate for the Degree of Master of Architecture.

Every candidate shall state in his application the special subject within the purview of the regulations for the Degree of Bachelor of Architecture, upon a knowledge of which he rests his qualification for the Master's Degree, and shall, with the application, transmit three copies, printed or type-written, of a constructive thesis that he has composed treating scientifically some special portion of the subject so stated, embodying the result of research, or showing evidence of his own work, whether based on the discovery of new facts observed by himself or of new relations of facts observed by others or tending generally to the advancement of Indian architecture. The candidate shall indicate generally in a preface to his thesis and specially in notes, the sources from which his information is taken, the extent to which he availed himself of the work of others, and the portions of the thesis which he claims as original; he shall further state whether his research has been conducted independently, under advice, or in co-operation with others, and, in what respects his investigations appear to him to tend to the advancement of Indian Architecture.

Master of Planning.—A candidate who has passed the Degree of Bachelor of Architecture may be admitted to the examination for the Degree of Master of Planning, provided he has undergone a course of Post-graduate training for a period of two years in the prescribed subjects in the University or in an Institution recognised for the purpose to the satisfaction of the Head of the Institution.

The Subjects for the examination are—

Group I

1. History of Planning.
2. Philosophy of Planning.

3. Regional Characteristics.
4. Planning in relation to Resouces—

- (a) Industry
- (b) Agriculture
- (c) Irrigation
- (d) Communication
- (e) Forestry
- (f) Geology

Group II

Planning in relation to Social Organisation—

- (a) Culture and Religion
- (b) Politics
- (c) Economics
- (d) Sociology
- (e) Law
- (f) Administration

Group III

Planning in relation to Technical Methods—

- (a) Agriculture
- (b) Civil Engineering
- (c) Surveying
- (d) Planning Law
- (e) Landscape Design

Master of Engineering (Public Health).—Any candidate who has passed the B.E. Degree Examination of the Calcutta University, or any other Engineering Examination accepted by the Syndicate as equivalent thereto, may be admitted to this examination, provided he has prosecuted the prescribed course of studies in an institution or institutions affiliated to the University for the purpose, for at least one academic year.

The examination shall consist of the following:—

I	Written Paper	.. Sanitary Bacteriology, Biology and Chemistry.
II		.. Public Health Administration and Law, Epidemiology and Statistics.
III		.. Public Health Engineering—I (Water Supply, Drainage and Sewerage).
IV		.. Public Health Engineering—II (Water Purification, Sewage and Refuse Disposal).
V		.. Public Health Engineering—III (General Sanitation, Hospitals, Housing and Town Planning, Ventilation, Food Sanitation Control of Insect Enemies, etc.)
VI		.. Public Health Engineering—IV (Design, Estimating and Construction of Public Health Engineering Works.)
VII		.. Public Health Engineering—V (Malaria Engineering).
VIII		.. Public Health Engineering—VI (Industrial Hygiene Engineering and Industrial Wastes Disposal.)
IX		Sessional and Practical work
X		<i>Viva Voce</i>

Doctor of Science (Engineering).—Any Bachelor of Engineering of the University of Calcutta may offer himself as candidate for the Degree of Doctor of Science (Engineering) after he has practised his profession with repute for five years.

This is an examination by thesis which may be supplemented by an examination, written, practical, oral, or all.

Diploma in Town and Regional Planning:—The courses of study extend over 2 years after passing the B.E. Examination or one year after passing the B. Arch. Examination and are as follows:—

- (i) (a) History of Town Planning and Civic Design
- (b) Sociology, Philosophy and Economics in relation to Town Planning.
- (ii) Town Planning Law
- (iii) (a) Town Planning in relation to Engineering

- (b) Town Planning in Relation to Architecture, and Amenities and Landscape Planning
- (iv) Statutory Planning in Practice (Theory).
- (v) Town Planning Practice (Theory)
- (vi) " " " " (Drawing)
- (vii) Town and City Planning and Regional Planning
- (a) Studio Work
- (b) Planning Project and Thesis.
- (c) *Viva voce* test on Planning Project and Thesis.

*Military Studies

Two grades of certificates will be issued for examination in Military studies: (i) Junior and (ii) Senior. No one who has not passed the Junior Certificate Examination at least two years previously shall be eligible for admission to the Senior Certificate Examination. Both the examinations are divided into two parts—each carrying 100 marks. The theoretical portion shall include: *for the Junior Examination*, (i) Military Hygiene and Camp Sanitation, (ii) Map Reading and Field Sketching, (iii) Discipline Leadership *esprit de corps*, morale and its importance in war, (iv) History of the Army in India, (v) Badges and Symbols of Rank in the Fighting Forces, (vi) Theory of Small Arms Fire, (vii) Organization of an Infantry Battalion, and (viii) Elements of Field Craft; *for the Senior Course*, (i) General knowledge of the Organisation of the Army, Navy and Air Force (in India), (ii) Principles and Development of tactics, Study of selected campaigns, (iii) Principles of Military Law (in India), (iv) Characteristics of Modern weapons, (v) Indian Military Geography, (vi) Relationship between Civil and Military Administration and the responsibility of all citizens in an emergency, and (vii) Welfare and Psychology of Man-Management, Principles of Command. Credit of the marks obtained in excess of 60 is allowed to be added to the aggregate of the marks obtained by the candidates appearing at the I.A., I.Sc., B.A., B.Sc., B.Com., or B.E., examinations provided certain conditions are fulfilled.

Scale of Fees

	Rs.
Intermediate in Arts (a)	30†
Bachelor of Arts (Pass) (b)	45

*Changes in these Regulations relating to Military Studies are awaiting sanction of Government.

† An additional fee of Re. 1/- for practical examination in case of a candidate appearing with a science subject.

Bachelor of Laws—

Rs.

Preliminary	..	..	..	..	..	30
Intermediate	..	..	..	..	..	30
Final	..	..	..	..	..	30
Master of Laws	..	..	..	..	..	200
Doctor of Laws	..	..	..	..	..	300
First M.B.B.S.	..	..	..	..	..	50

Final M.B.B.S.—

Part I	..	..	..	..	..	40
Part II	..	..	..	..	..	40
Doctor of Medicine	..	..	..	..	..	300
Master of Surgery	..	..	..	..	..	300
Master of Obstetrics	..	..	..	..	..	300
Diploma in Tuberculous Diseases	..	..	..	..	..	50
Diploma in Child Health	..	..	..	..	..	100
Diploma in Dietetics	..	..	..	..	..	100
Diploma in Medical Radiology and Electrolgy Part I	..	..	..	..	..	100
Diploma in Medical Radiology and Electrolgy Part II	..	..	..	..	..	100
Diploma in Industrial Health, Part I	..	..	..	..	..	100
Diploma in Industrial Health, Part II	..	..	..	..	..	100
Diploma in Tropical Medicine and Hygiene	..	..	..	..	..	100

Bachelor of Dental Surgery—

First, Second and Third Professional Examination	30	each
Final Professional Examination	..	..
Intermediate Examination in Nursing	..	..
Bachelor of Nursing	..	..
Diploma in Soap Technology	..	..
Diploma in Journalism	..	..
Diploma in Public Health Part I	..	..
Diploma in Public Health Part II	..	..
Diploma in Ophthalmic Medicine and Surgery Part I	..	..
Diploma in Ophthalmic Medicine and Surgery Part II	..	..
Diploma in Maternity and Child Welfare	..	..
Diploma in Gynaecology and Obstetrics	..	..
Doctor of Science (Public Health)	..	..
Bachelor of Engineering Part I	..	..
Bachelor of Engineering Part II	..	..
Master of Engineering	..	..
Bachelor of Architecture Part I	..	..
Bachelor of Architecture Part II	..	..

Diploma in Town and Regional Planning	..	..	100
Master of Architecture	..	..	200
Doctor of Science (Engineering)	..	..	300
Master of Engineering (Public Health)	..	..	100
Master of Planning	..	..	200

No. 16138

CEYLON

3. Officers and Authorities

The Chancellor :

His Excellency the Lord Soulbury, G.C.M.G., O.B.E., M.C.,
M.A. (Oxon.), Hon. LL.D. (Ceylon), Governor-General of
Ceylon ; Hon. Fellow of University College, Oxford.

The Pro-Chancellor :

The Hon. M. D. Banda, B.A. (Lond.), Minister of Education,

The Vice-Chancellor :

Sir Ivor Jennings, Q.C., M.A., LL.B., LITT.D. (Cantab.)
LL.D. (Lond.) ; Hon. LL.D. (Bristol) Hon. Fellow of St.
Catharine's College, Cambridge,

Registrars :

A. M. K. Cumaraswamy, B.Sc. (Lond.)
H. J. Balmond, B.A. (Lond.)

Assistant Registrars :

S. C. Blok, B.A. (Lond.), F.L.A.
B. C. Anghie, B.A. (Lond.).

The Librarian :

R. S. Enright, B.A. (Lond.), F.L.A.

Assistant Librarians :

K. D. Somadasa, B.A. (Lond.).
Mrs. A. T. A. De Souza, B.A. (Lond.)

The Director of Physical Education :

G. Brant Little, B.Sc., (Notre-Dame)

University Medical Officer:

C. E. S. Weeratunga, M.B.B.S., (Ceylon).

Former Chancellors:

The Late Sir Andrew Caldecott, G.C.M.G., C.B.E., M.A. (Oxon.), Hon. LL.D. (Ceylon), Chancellor, 1942—44.

Sir Henry Monck-Mason Moore, G.C.M.G., M.A., (Cantab.) Hon. LL.D. (Ceylon), Chancellor, 1944—49.

Former Pro-Chancellors:

C. W. W. Kannangara, Hon. LL.D. (Ceylon), Pro-Chancellor, 1942—47.

E. A. Nugawela, Pro-Chancellor, 1948—52.

Professor Emeritus:

F. H. V. Gulasekharam, M.A. (Madras).

The Court

(a) Members *Ex-officio*:

The Chancellor
The Pro-Chancellor
The Vice-Chancellor
The Members of the Council
The Deans of The Faculties
The Professors
The Heads of Departments

(b) Other Members:

(i) *Elected by the Faculties*

Until

Mr. V. Chelvanayakam (Oriental Studies)	..	1954
Dr. G. C. Mendis (Arts)	.. ..	1954
Mr. B. L. T. deSilva (Science)	.. ..	1953
Dr. R. Caldera (Medicine)	.. ..	1954
Mr. J. C. V. Cinnappa (Engineering)	.. ..	1954

(ii) *Elected by Registered Graduates* *Until*

Mr. V. E. H. de Mel	..	..	..	..	1953
Mr. P. Kandiah	..	..	..	..	1953
Mr. L. P. N. Perera	..	..	..	..	1954
Rev. Fr. Peter A. Pillai	..	..	..	..	1954
Mr. K. M. P. Rajaratne	..	..	..	..	1954

(iii) *Elected by University Teachers*

				<i>Until</i>	
Mr. H. A. de S. Gunasekera	..	..	..	1952	
Mr. W. J. F. LaBrooy	..	..	..	1952	

(iv) *Elected by the Parliament of Ceylon*(a) *House of Representatives:*

Vacant.

(b) *Senate:* *Until*

Mr. S. Nadesan	..	..	..	..	1954
Vacant.					

(v) *Elected by Institutions connected with Oriental Culture*

				<i>Until</i>	
Rev. D. Pannasara Thero	..	..	..	1954	
Mudaliyar E. A. Abeysekera	..	..	..	1954	
Rt. Revd. Dr. Edmund Pieris	..	..	..	1953	
The Hon. S. Natesan	..	..	..	1952	
Mr. A. Saravanamuttu	..	..	..	1952	

(vi) *Elected by the Council of Legal Education*

				<i>Until</i>	
Mr. N. E. Weerasooriya, Q.C.	..	..	..	1953	
The Hon. Mr. Justice E. F. N. Gratien, Q.C.	..			1955	

(vii) *Elected by the Ceylon Medical Council*

				<i>Until</i>	
Dr. J. R. Blaze	..	..	..	1954	
Dr. M. C. M. Kaleel	..	..	..	1953	

(viii) *Elected by Associations*

	<i>Until</i>
Mr. A. E. Tamber (All-Ceylon Union of Teachers)	1953
Mr. K. A. Selliah (Headmasters' Conference) ..	1954
Miss E. M. Roper (Association of Headmistresses)	1954

The Council

(a) Members <i>Ex-officio</i> :	<i>Until</i>
Vice-Chancellor	
The Director of Education, (Dr. H. W. Howes) ..	
Professor G. P. Malalasekera, Dean, Faculty of Oriental Studies	1954
Professor J. L. C. Rodrigo, Dean, Faculty of Arts	1954
Professor A. W. Mailvaganam, Dean, Faculty of Science	1954
Professor N. Attygalle, Dean, Faculty of Medicine	1954
Professor E. O. E. Pereira, Dean, Faculty of Engineering	1954

(b) Other Members

(i) *Appointed by the Chancellor*

	<i>Until</i>
Mr. A. M. A. Azeez	1954
Dr. Andreas Nell	1954
Mr. H. V. Perera, Q.C.	1954
Mr. A. E. Keuneman	1955
Dr. W. G. Wickeremasinghe	

(ii) *Elected by the Court*

	<i>Until</i>
Vacant	1953
Rev. Fr. Peter A. Pillai	

(iii) *Elected by the Senate*

	<i>Until</i>
Professor P. B. Fernando	1954
Professor E. F. C. Ludowyk	1954

The Senate

(a) Members *Ex-officio* :

The Vice-Chancellor	
The Dean of the Faculty of Oriental Studies (Professor G. P. Malalasekera)	
The Dean of the Faculty of Arts (Professor J. L. C. Rodrigo)	
The Dean of the Faculty of Science (Professor A. W. Mailvaganam)	
The Dean of the Faculty of Medicine (Professor N. Attygalle)	
The Dean of the Faculty of Engineering (Professor E. O. E. Pereira)	
Professor O. E. R. Abhayaratne	Professor T. R. V. Murti
Professor J. R. Blaze	Professor T. Nadaraja
Prof. M. A. B. Britto-Muttunayagam	Professor Milroy Paul
Professor P. K. Chanmugm	Professor R. H. Paul
Professor G. S. W. de Saram	Professor M. V. P. Peiris
Professor P. C. C. deSilva	Professor H. C. Ray
Professor C. J. Eliezer	Professor D. A. Ranasinghe
Professor P. B. Fernando	Professor O. H. de A. Wijeyesekera
Professor W. Fernando	Mr. J. de Lanerolle
Professor E. L. Fonseka	Mr. E. J. Livera
Professor T. L. Green	Dr. Miss V. Reich
Professor D. E. Hettiaratche	The Librarian
Professor K. Kanapathipillai	Mr. F. R. Jayasuriya
Professor W. A. E. Karunaratne	Mr. B. L. T. deSilva
Professor F. E. C. Ludowyk	Dr. K. Kularatnam
Professor C. A. Mac Gaughey	
Professor R. H. McKeag	Dr. A. C. E. Koch
	Mr. J. C. V. Chinnappa

(b) Other Members :

(i) *Elected by the Teachers of the University*

Dr. G. C. Mendis	..	..	..	..	Until
Dr. G. H. Cooray	..	..	..	..	1954
	..	..	..	..	1954

(ii) *Principals of Schools appointed by the Council* *Until*

The Rev. Canon R. S. deSaram	..	..	..	1954
Miss G. Robins	..	..	..	1954

(iii) *Elected by the Council* *Until*

Dr. Andreas Nell	..	..	..	1954
Rev. Fr. Peter A. Pillai	..	..	..	1954

(iv) *Appointed by the Council* *Until*

Dr. A. W. R. Joachim	..	..	..	1953
Mr. T. A. Burns	..	..	..	1954

(v) *Representatives of Oriental Culture* *Until*

The Ven. Baddegama Piyaratana Maha Thero	..	1954
The Ven. Dr. P. Vajiranana Thero	..	1954
The Hon. S. Natesan	..	1954

4. Departments of Study

Faculty of Oriental Studies

Dean : Professor G. P. Malalasekera

Arabic:

Vacant.

Pali:

G. P. Malalasekera, O.B.E., M.A., Ph.D., D.Litt. (Lond.),
Professor and Head of the Department.
3 Lecturers.

Sanskrit:

O. H. de A. Wijesekera, M.A., Ph.D., Dipl., O.S. (Lond.),
Professor and Head of the Department.
2 Lecturers.
1 Assistant Lecturer.

Sinhalese:

D. E. Hettiaratchi, B.A., Ph.D. (Lond.), M.A., Ph.D.
(Calcutta), Professor and Head of the Department.
4 Lecturers.
2 Assistant Lecturers.

Tamil:

- K. Kanapathipilai, B.A., Ph.D. (Lond.), Vidwan (Annamalai)
 Professor and Head of the Department.
 3 Lecturers.

Faculty of Arts

Dean: Professor J. L. C. Rodrigo.

Arabic:

(see Faculty of Oriental Studies).

Economics—

- F. R. Jayasuriya B.A., B.Sc. (Econ.), (Lond.), Lecturer and
 Acting Head of the Department.
 3 Lecturers.
 2 Assistant Lecturers.

Education—

- T. L. Green, M.A., B.Sc. (Bristol), Professor and Head of the
 Department.
 3 Lecturers.
 2 Assistant Lecturers.

English—

- E. F. C. Ludowyk, B.A. (Lond.), M.A., Ph.D. (Cantab.),
 Professor and Head of the Department.
 2 Lecturers.
 1 Assistant Lecturer.

Geography—

- K. Kularatnam, M.A. (Lond.), Doctorat de L'Universite
 (Paris), DIP. Gemmology, A.G.A. (Lond.), Dip. Geog.
 (Madras), Lecturer.
 1 Lecturer.
 1 Assistant Lecturer.

History—

- H.C. Ray, M.A. (Calcutta), Ph.D., Litt.D. (Lond.), Professor
 and Head of the Department.
 G. C. Mendis, B.A., Ph.D. (Lond.), Reader.
 4 Lecturers.
 3 Assistant Lecturers.

Law—

- T. Nadaraja, B.A. (Cantab.), Barrister-at-Law, Professor
 and Head of the Department.
 1 Lecturer.
 2 Assistant Lecturers.

Modern Languages (Western) :—

Miss V. Reich, Ph.D. (Vienna), Lecturer.

Mathematics—

C. J. Eliezer, M.Sc., D.Sc. (Lond.), M.A., Ph.D. (Cantab.),
Professor and Head of the Department.

U. D. R. Caspersz, B.Sc. (Lond.), Reader.

S. Nadaraser, M.A. (Cantab.), B.Sc. (Lond.), Reader.

1 Lecturer.

1 Assistant Lecturer.

Pali—

(see Faculty of Oriental Studies).

Sanskrit—

(see Faculty of Oriental Studies).

Sinhalese—

(see Faculty of Oriental Studies)

Philosophy—

T. R. V. Murti, M.A., D.Litt. (Benares), Vedanta Sastri and
Acharyar, Professor and Head of the Department.

2 Lecturers.

1 Assistant Lecturer.

Sociology—

P.R. Peiris, B.A. (Ceylon), Ph.D. (Lond.), Assistant Lecturer.

S. J. Tambiah, B.A. (Ceylon), Assistant Lecturer (*On leave*).

Tamil—

(see Faculty of Oriental Studies)

Western Classics—

J. L. C. Rodrigo, B.A. (Lond.), M.A. (Oxon.), of Gray's Inn,
Barrister-at-Law, Professor and Head of the Department.

3 Lecturers.

Faculty of Science

Dean : Professor A. W. Mailvaganam

Agriculture—

E. J. Livera, B.Sc., B.Sc. (Agric.), (Lond.), Lecturer and
Acting Head of the Department.

2 Lecturers.

2 Assistant Lecturers.

Anatomy—

(see Faculty of Medicine).

Botany—

B. L. T. de Silva, M.Sc. (Lond.), Lecturer, and Acting Head of the Department.

3 Lecturers.

Chemistry—

E. L. Fonseka, M.Sc., Ph.D. (Lond.), F.R.I.C., Professor and Head of the Department.

4 Lecturers.

3 Assistant Lecturers.

Geography—

(see Faculty of Arts).

Mathematics—

(see Faculty of Arts).

Physics—

A. W. Mailvaganam, O.B.E., M.A., Ph.D. (Cantab.), B.Sc. (Lond.), F.N.A.S.C. (India), Professor and Head of the Department.

V. Appapillai, B. Sc., Ph. D. (Lond.), Reader.

2 Lecturers.

3 Assistant Lecturers.

Physiology and Pharmacology—

(see Faculty of Medicine).

Zoology—

W. Fernando, B.Sc., Ph.D. (Lond.), Professor and Head of the Department.

3 Lecturers.

Faculty of Medicine*Dean:* Professor N. Attygalle*Anatomy—*

P. K. Chanmugam, M.Sc. (Lond.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), L.M.S. (Ceylon), Professor and Head of the Department.

6 Lecturers.

3 Demonstrators.

Physiology—

A. C. E. Koch, Ph.D. (Oxon.), L.M.S. (Ceylon), Reader and Acting Head of the Department.

10 Lecturers.

1 Assistant Lecturer.

2 Demonstrators.

Pathology—

W. A. E. Karunaratne, O.B.E., M.D. (Med.), M.D. (Path), M.R.C.P. (Lond.), Professor and Head of the Department.

G. H. Cooray, M.B.B.S., M.D. (Path), (Lond.), M.R.C.S. (Eng.), L.R.C.P., (Lond.), D.T.M. & H. (Lond.), Reader.

8 Lecturers.

2 Demonstrators.

Bacteriology—

K. G. B. Stork, D.B. (Manch.), D. T. M. & H. (Eng.), L.M.S. (Ceylon), Visiting Lecturer.

2 Visiting Demonstrators.

Parasitology—

V. Sivalingam, M.R.C.P. (Edin.), D.T.M. & H. (Eng.), L.R.C.P. & S. (Edin.), L.R.F.P. & S. (Glas.), L.M.S. (Ceylon), Visiting Lecturer.

2 Visiting Demonstrators.

Forensic Medicine—

G. S. W. de Saram, M.B.B.S. (Lond.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), L.M.S. (Ceylon), Professor and Head of the Department.

Public Health—

O. E. R. Abhayaratne, D.P.H. (Harvard), M. P. H. (Cum Laude), Harvard, D.P.H. (Univ. Edin.), L.R.C.P. & S. (Edin.), L.R.F.P. & S. (Glas.), L.M.S. (Ceylon), Professor and Head of the Department.

Medicine—

P. B. Fernando, O.B.E., M.D., B.S., F.R.C.P. (Lond.), D.T.M. & H. (Lond.), L.M.S. (Ceylon), Professor and Head of the Department.

J. R. Blaze, O. B. E., M. D., M. R. C. P. (Lond.), L.M.S. (Ceylon), Associate Professor.

P. G. C. deSilva, M.D., M.R.C.P. (Lond.), Professor of Paediatrics.

1 Research Assistant.

Ward Classes Tutorials, Clinical Medicine and Pre-Clinical Medicine—
The Professors and 8 Visiting Lecturers.

Dermatology—

T. Chelvarajah, M.R.C.P. (Lond.), L.M.S. (Ceylon), Visiting Lecturer.

Therapeutic Pharmacology—

V. P. deSoysa, M.D. (Lond.), L.M.S. (Ceylon), Visiting Lecturer.

Tuberculosis—

Byron Josef, M.R.C.S. (Eng.), L.R.C.P., M.R.C.P. (Lond.), L.M.S. (Ceylon), Visiting Lecturer.

Leprosy—

A. C. Fernando, M.R.C.S. (Eng.), L.R.C.P. (Lond.), L.M.S. (Ceylon), Visiting Lecturer.

Infectious Diseases—

J. S. Amarasingham, L. M. S. (Ceylon), Dip. M. & S. (Ceylon), Visiting Lecturer.

Psychological Medicine—

C. D. Amarasinghe, L.M.S. (Ceylon), D.T.M. & H., D.P.M. (Lond.), L.R.C.P. & S. (Edin.), Visiting Lecturer.

Clinical Instructions O. P. D.—

Simeon Farnando, M.D. (Lond.), L.M.S. (Ceylon), Visiting Lecturer.

Medical Registrar—

H. T. W. Jayasekera, M.B.B.S. (Ceylon).

Nutrition—

Professor of Public Health.

Surgery—

Milroy Paul, M.S. (Lond.), F.R.C.S. (Eng.), M.R.C.P. (Lond.), F.I.C.S., Professor and Head of the Department.

M. V. P. Peiris, M.B.B.S., F.R.C.S. (Eng.), L.R.C.P. (Lond.), L.M.S. (Ceylon), Associate Professor.
1 Research Assistant.

Ward Classes, Tutorials, Clinical Surgery, Pre-Clinical Surgery and Operative Surgery—

The Professor and 9 Visiting Lecturers.

Radiology and Electro-therapeutics—

H. O. Goonewardena, M.B.B.S. (Lond.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), D.M.R.F. (Camb.), Visiting Lecturer.

Anaesthetics—

L. M. de Silva, L.R.C.P. & S. (Edin.), D.T.M. & H. (Eng.), D.A. (Eng.), Visiting Lecturer.

A. Lucas, L.M.S. (Ceylon), L.R.C.P. & S. (Edin.), L.R.F.P. & S. (Glas.), D.A.R.C.P. & S. (Eng.), D.T.M. & H. (Eng.), Visiting Lecturer.

H. T. Anthonisz, L.M.S. (Ceylon), L.R.C.P. & S. (Edin.), L.R.F.P. & S. (Glas.), Visiting Lecturer.

Dental Surgery—

W. Balendra, L.D.S., R.C.S. (Eng.), M.R.C.S. (Eng.) F.D.S. (Edin.), L.R.C.P. (Lond.), L.M.S. (Ceylon), Visiting Lecturer.

Surgical Registrar—

G. S. Saverimuttu, L.M.S. (Ceylon), Visiting Lecturer.

Venereal Diseases—

H. C. P. Gunawardena, F.R.C.S. (Eng.), L.R.C.P. (Lond.), L.M.S. (Ceylon), Visiting Lecturer.

Otology, Laryngology, Rhinology—

H. C. P. Gunawardena, F.R.C.S. (Eng.), L.R.C.P. (Lond.), L.M.S. (Ceylon), Visiting Lecturer.

Ophthalmology—

J. Dadabhoy, L.M.S. (Ceylon), D.M.O.S., (Lond.), L.R.C.P. & S. (Edin.), L.R.F.P. & S. (Glas.), Visiting Lecturer.

Obstetrics and Gynaecology—

N. Attygalle, F.R.C.S. (Eng.), F.R.C.O.G. (Lond.), D.L.O.

(Lond.), L.M.S. (Ceylon), Professor and Head of the Department.

D. A. Ranasinghe, F.R.C.S. (Eng.), M.R.C.O.G. (Lond.), L.M.S. (Ceylon), Associate Professor.

2 Lecturers.

1 Research Assistant.

2 Tutors.

Clinical Midwifery—

The Professors—

R. Caldera, F.R.C.S. (Edin.), L.R.C.P. & S. (Edin.), I.R.F.P. & S. (Glas.), D.T.M. & H. (Eng.), L.M.S. (Ceylon).

Veterinary Science—

C. A. McGaughey, M.A. (Cantab.), M.Sc. (Manch.), M.R.C.V.S., D.V.S.M. (Manch.), Professor and Head of the Department

3 Lecturers.

Dental Surgery—

R. H. Mckeag, F.D.S. (Edin.), M.A., M.B., B.C.H., B.A.O., B. Dent. Sc. T. C. D., Professor and Head of the Department.

3 Visiting Lecturers.

1 Assistant Lecturer.

2 Demonstrators.

Prosthetic Dental Surgery—

M.A.B. Brito Muttunayagam, M.R.C.S. (Eng.), L.R.C.P. (Lond.), D.T.M., D.P.H. (Lond.), F.D.S., R.C.S. (Eng.), Professor and Head of the Department.

1 Lecturer.

Orthodontics—

S. P. de Jong de Silva, L.M.S., L.D.S., (Ceylon), B.D.S. (Durham), F.D.S., R.C.S. (Eng.), Visiting Lecturer.

Dental Radiology—

S. P. de Jong de Silva, L.M.S., L.D.S. (Ceylon), B.D.S. (Durham), F.D.S., R.C.S. (Eng.), Visiting Lecturer.

Operative Dental Surgery—

W. Balendra, L.D.S., R.C.S., M.R.C.S. (Eng.), L.R.C.P. (Lond.), L.M.S. (Ceylon), Visiting Lecturer.
 S. B. Dissanayake, B.D.S. (Ceylon), Assistant Lecturer (On leave).

S. Gunawardena, L.D.S. (Manch.), L.M.S. (Ceylon), L.R.C.P. & S. (Edin.), Visiting Lecturer.

General Bacteriology—

J. Gulasekeram, D.B. (Lond.), L.M.S. (Ceylon), Visiting Lecturer.

Dental Metallurgy—

W. L. W. Ludekins, B.Sc., Ph.D. (Lond.), Lecturer.
 S. Gunawardena, L.M.S. (Ceylon), L.D.S. (Manch.), L.R.C.P. & S. (Edin.), Visiting Lecturer.

General Medicine—

V. E. P. Seneviratne, M.D., M.R.C.P. (Lond.), D.T.M. & H. (Lond.), L.M.S. (Ceylon), Visiting Lecturer.

General Surgery—

P. R. Anthonis, L.M.S. (Ceylon), F.R.C.S. (Eng.), Visiting Lecturer.
 L. D. C. Austin, L.M.S. (Ceylon), F.R.C.S. (Eng.), Visiting Lecturer.

Anaesthetics—

A. Lucas, L.M.S. (Ceylon), L.R.C.P. & S. (Edin.), L.R.F.P. & S. (Glas.), D.A., R.C.P. & S. (Eng.), D.T.M. & H. (Eng.), Visiting Lecturer.

General Anatomy—

P. K. Channugam, M.Sc. (Lond.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), L.M.S. (Ceylon), Professor of Anatomy.
 H. P. A. Wijetunga, M.B.B.S. (Ceylon), Lecturer.

Dental Anatomy—

M. J. Waas, Ph.D. (Manch.), L.M.S. (Ceylon), Lecturer.

Comparative Anatomy—

P. K. Channugam, M.Sc. (Lond.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), L.M.S. (Ceylon), Professor of Anatomy.

Dental Pathology—

S. P. de Jong deSilva, L.M.S. (Ceylon), B.D.S. (Durham),
F.D.S., R.C.S. (Eng.), Visiting Lecturer.

Physiology and Pharmacology—

A. C. E. Koch, Ph.D. (Oxon.), L.M.S. (Ceylon), Acting
Head of the Department.

3 Lecturers.

General Pathology—

W. A. E. Karunaratne, O.B.E., M.D. (Med.), M.D. (Path.),
(Lond.) Professor.

G. H. Cooray, M.D., B.S. (Lond.), M.R.C.S. (Eng.),
L.R.C.P., D.T.M. & H. (Lond.) Reader.

1 Lecturer.

Faculty of Engineering

Dean: Professor E. O. E. Pereira.

Civil Engineering—

E. O. E. Pereira, B.Sc. (Lond.), B.A. (Cantab.), A.M.I.C.E.,
Professor and Head of the Department.

4 Lecturers.

1 Assistant Lecturer.

Electrical Engineering—

R. H. Paul, M.A. (Cantab.), B.Sc. (Lond.), M.I.E.E., F.R.S.A.,
Professor and Head of the Department.

2 Assistant Lecturers.

Mechanical Engineering—

J. C. V. Chinnappa, B.E. (Madras), D.I.C., M.Sc., (Eng.)
(Lond.), G.I. Mech., E., Lecturer.

1 Assistant Lecturer.

Mathematics—

E. F. Bartholomeusz, B.Sc. (Lond.), Assistant Lecturer.

1. History

The University of Ceylon was established by the Ceylon University Ordinance (No. 20 of 1942) which was passed by the State Council on April 2nd, 1942, and received the Governor's assent on May 5th of that year. It was brought into operation on July 1st, 1942, by a Proclamation dated June 9th, 1942. The nucleus of the University was formed, however, by two Colleges of University rank, the Ceylon Medical College founded in 1870 and the Ceylon University College founded in 1921, both of which were incorporated into the University.

2. Constitution

The University Commission appointed by Government in 1928 had recommended that the University of Ceylon should be unitary, residential and autonomous. The Ceylon University Ordinance seeks to carry out this recommendation. The Ceylon University College and the Ceylon Medical College lost their identity on the 1st July, 1942, and were formed into a single University. They did not become constituent or affiliated Colleges; nor has the University power to admit Colleges to affiliation. New Faculties may be created, and other Colleges may be absorbed; but, if that is done, those Colleges also will lose their identity.

This unitary character of the University is reinforced by the provisions of the Ordinance relating to residence. It is provided that the seat of the University shall be in or near Kandy (section 4) and that every under-graduate shall reside within such radius from the Convocation Hall as shall be prescribed, in a Hall or under such conditions of residence as may be prescribed (section 1). These provisions cannot be brought into operation, however, until the necessary buildings have been erected in the University Park at Peradeniya. They have accordingly been suspended by the Proclamation of June 12, 1942. When the building plans for Peradeniya Park have been carried out, there will be residential accommodation in the Halls for every (or nearly every) under-graduate in the Faculties of Oriental Studies, Arts, Science and Law. Though it is intended to retain the Medical School in Colombo, agreement has been reached with the Government for the establishment of a second Medical School, with a University Hospital, in Peradeniya. The Faculty of Medicine will then be divided into two Schools; but they will operate in parallel lines and staff and students will be interchangeable. It has also been decided to establish Faculties of Agriculture, Veterinary

Science, and Engineering. The last will be established on University land. The others will occupy the lands and buildings of the School of Agriculture and the Veterinary Hospital though additional buildings will be needed on the Golf Course. These additions to the original plan, together with the increased demand for University education, will require a considerable increase of residential accommodation and efforts are being made to find land to house a maximum of 4,000 students and some 250 academic staff.

The autonomy of the University was secured by making it a body corporate with the usual power to sue and be sued and to act under its common seal (section 3). It is not a Government Department like the former University College and Medical College: the members of its staff are not government servants; it is not controlled by a Minister; it has its own machinery for controlling its finances. Until sufficient endowments are received to enable it, with its other sources of income, to "live on its own" it will however be largely dependent upon an annual grant from the Parliament of Ceylon.

The corporation known as the University of Ceylon is made up of the Chancellor, the Pro-Chancellor, the Vice-Chancellor, the Court, the Council and the Senate (section 3). The Governor-General of Ceylon is Chancellor and the Minister of Education is Pro-Chancellor, *ex-officio* (sections 10 and 11). The Vice-Chancellor is a paid full-time executive and academic officer (section 12). Financial and Legislative control is vested in the Court, which consists, under section 15 and Statute II, of the Chancellor, the Pro-Chancellor, the Vice-Chancellor, the Members of the Council, the Professors and other Heads of Departments, representatives of the Faculties, graduates, Parliament and other bodies, and certain nominated members. Its main functions are to make Statutes and to adopt the estimates and accounts. The Council is the Executive body of the University and consists of the Vice-Chancellor, the Director of Education, the Deans of the Faculties, five members appointed by the Chancellor, three members elected by the Court, two members elected by the Senate and one Warden (but this last provision has been suspended). In academic matters, however, the Council acts on the advice of the Senate, which consists of the Vice-Chancellor, the Deans of the Faculties, the Professors and other Heads of Departments, the Librarian, two members elected by other teachers of the University, two schoolmasters appointed by the Council, two members appointed by the Council, one Warden, and not more than five other persons with special qualifications appointed

by the Council. In many cases, however, the Senate acts on the recommendation of the Faculties. A Faculty consists of the Professors, readers and lecturers of the Departments within the Faculty together with persons appointed by the Council on the recommendation of the Senate, and *ex-officio* members.

The University exercises its legislative powers by means of three types of delegated legislation :

- (1) Statutes, which are made by the Court after consulting the Council. The first Statutes are scheduled to the ordinance ;
- (2) Acts, which are made by the Council, in most cases on the proposition of the Senate ;
- (3) Regulations, which are usually made by the Council or the Senate.

5. Admission to the University

Admission to the University is controlled by a Board of Admission, consisting of the Vice-Chancellor, the Deans of the Faculties and such other officers or teachers of the University as the Council may determine. Applications for admission should be made to the Registrar. By the Ordinance, no person is eligible for admission to a course of study for a degree unless he has attained the age of seventeen years, and unless he has passed an Entrance Examination of the University or an Examination recognised by the Senate for that purpose.

The University has two Entrance Examinations, the Preliminary Examination and the First Examination for Medical Degrees. The latter examination may be taken by candidates from approved schools, who, if successful, may enter the Faculty of Medicine direct.

The preliminary Examination is an examination in four subjects and an Essay in English, Sinhalese or Tamil. The subjects shall be selected from a group in the manner prescribed.

A candidate intending to read for the First Examination for Medical degrees cannot present himself for the Entrance Examination unless he has passed a preliminary examination in general education recognised by the General Medical Council of Great Britain.

6. Admission of Students from other Universities

A student who has been in attendance at another University or at a College of University status shall not be admitted to the University of Ceylon unless the Vice-Chancellor is satisfied, from certificates from the University or University College or from other evidence, that the student's work in that University has been satisfactory and his conduct good.

The University of Ceylon accepts the rule of Indian Universities requiring migration certificates.

The following exemptions may be granted to students of other Universities :—

- (1) Exemption may be granted from the Preliminary Examination where the student has taken an examination which is recognised by the Senate as equivalent.
- (2) Where the Faculty of Oriental Studies or the Faculty of Arts or the Faculty of Science reports that a student has followed a course of study of at least one session's duration at a University or University College and has passed an examination of a standard not lower than that of the First Examination in Arts, or the First Examination in Science, the Senate may in any special case authorise the admission of that student and exempt him from one year's study and from the First Examination in Arts or from the First Examination in Science.
- (3) Where the Senate after consideration of a report from a Faculty, decides that a graduate of another University is competent to proceed to a first degree in that Faculty after a course of study of two sessions' duration, he may be admitted to the University of Ceylon without an examination and may be exempted from the First Examination in that Faculty and from one sessions' course of study.
- (4) Where the Faculty of Science reports that a student has followed a course of study in a University or University College of at least one session's duration and has passed an examination of a standard not lower

than that of the First Examination for Medical degrees, the Senate may in a special case, admit the student to the Faculty of Medicine and exempt him from the First Examination for Medical degrees.

- (5) Where the Faculty of Medicine reports that a student who has passed the First Examination for Medical degrees, or has been exempted from it, has followed a course of study in Anatomy and Physiology of at least six terms' duration at a University or Medical School whose degrees or diplomas are recognised by the General Medical Council, and has passed an examination whose standard is not lower than that of the Second Examination for Medical degrees, the Senate may in special cases exempt the student from two years of study in the Faculty of Medicine and from the Second Examination for Medical degrees.

7. Courses of Study

First Degrees

General.—The University has at present six professional schools, for Medicine, Dental Surgery, Law, Engineering, Agriculture and Veterinary Science. In these schools the scheme of studies is determined primarily by professional needs and in the Faculty of Medicine in particular it has to follow the general lines of the recommendations of the General Medical Council of the United Kingdom. The Scheme of studies in the Faculties of Arts and Science are determined primarily by educational requirements.

Degree of Bachelor of Arts or Bachelor of Science

The Degree of Bachelor of Arts or Science is neither an "Honours" nor a "Pass" Degree because these nomenclatures are unknown in this University. Honours are awarded both on the General Course and on the Special Course. The General Course is recommended for those who wish to have a broad education in three related subjects and the Special Course for those who wish to have a more intensive, but narrower, course in one subject: a student is not admitted to a Special Course, unless—

- (a) he has reached "advanced standard" at the Entrance Examination,

- (b) he has shown special competence in the subject at the General Qualifying Examination.

At any stage of the Special Course, however, a student may be required to transfer himself to the General Course.

General Course

The course is of three years' duration and there is an examination at the end of each year namely—

- 1st year—General Qualifying Examination—Arts or Science.
 2nd year—General Examination Part I—Arts or Science.
 3rd year—General Examination Part II—Arts or Science.

Parts I and II are considered together for the award of Honours.

Special Course

Unless a student has been exempted from the General Qualifying Examination because he has attained "advanced standard" at the Entrance Examination, he must follow the course for the General Qualifying Examination and then be approved for a Special Course on the results of that Examination. The Special Course is of three years' duration with an examination at the end of each year, namely—

- 1st year—Special Qualifying Examination—Arts or Science.
 2nd year—Special Examination Part I—Arts or Science.
 3rd year—Special Examination Part II—Arts or Science.

General Course for Degrees in Arts

The following is the Course for the General Course, but in each case at least two subjects must be selected from (a) list:—

Group I—

- (a) Arabic, Persian, Pali, Sanskrit, Sinhalese, Tamil.
 (b) Buddhist Civilization, English, French, German, Latin, Greek, History, Philosophy.

Group II—

- (a) English, French, German, Latin, Greek.
 (b) Arabic, Persian, Pali, Sanskrit, Sinhalese, Tamil, Economics, Geography, History, Philosophy.

Group III—

- (a) Economics, Geography, History, Philosophy.
- (b) Arabic, Persian, Pali, Sanskrit, Sinhalese, Tamil, English, French, German, Latin, Greek.

Group IV—

- (a) Economics, Geography, Mathematics, Philosophy.
- (b) Arabic, Persian, Pali, Sanskrit, Sinhalese, Tamil, English, French, German, Latin, Greek.

Group V—

- (a) Arabic, Persian, Sinhalese, Tamil, English, French, German.
- (b) Economics, Geography, History, Philosophy.

Special Courses in Arts

Special Courses may be provided in the following subjects :—

Arabic, Pali, Sanskrit, Sinhalese, Tamil, Economics, English, Geography, History, Mathematics, Philosophy, Sociology, Latin, Greek, Western Classics.

General Course for Science Degrees

Candidates for the General Science Examination shall have followed the appropriate courses from the following, selecting three subjects :—

Pure Mathematics, Applied Mathematics, Physics, Chemistry, Botany, Zoology, Geography.

Special Courses for Science Degrees

Candidates for the Special Course in Science will select a subject from :—
Mathematics, Physics, Chemistry, Botany, Zoology, Geography.

For the subsidiary subject (if any) prescribed for the Special Courses candidates will select one from any of the subjects listed for the General Course.

In the Special Science Examination questions will be set involving the translation of passages from French and/or German and answers with regard to the subject matter thereof.

Degree of Bachelor of Laws (LL.B.)

A course of study for the Degree of Bachelor of Laws shall be of three years' duration. A degree is granted to a candidate who has passed the First Examination at the end of one year's study and the Final Examination two years after.

First Examination.—will be on the following subjects—Roman Law, Constitutional Law, Legal Systems of Ceylon and Criminal Law.

Final Examination—will be on the following subjects—Law of Persons and Property, Laws of Contract and Delict, Jurisprudence and Legal Theory, Commercial Law or Evidence and Procedure or Individual Law or Conflict of Laws.

A candidate successful at the Final Examination may be awarded First Class Honours, Second Class Honours or a Pass.

Degree of Bachelor of the Science of Agriculture (B.Sc. Agric.)

The course will be of three years' duration and the prescribed examinations shall be:—

1. First Examination in Agriculture at the end of the 1st year: subjects—Chemistry, Botany and Zoology.
2. Final Examination in Agriculture, Part I, at the end of the 2nd year: subjects—Agriculture, Animal Husbandry and Hygiene, Agricultural Chemistry, Agricultural Zoology and Agricultural Botany.
3. Final Examination in Agriculture, Part II, at the end of the 3rd year: subjects—General Agriculture, Agricultural Botany, Agricultural Chemistry, Agricultural Zoology and Animal Husbandry and Hygiene.

A candidate who has passed both parts of the final Examination will be awarded First Class Honours, Second Class Honours or a Pass.

Degree of Bachelor of the Science of Engineering (B.Sc. Eng.)

The Course will be of three years' duration and the prescribed examinations shall be:—

1. First Examination in Engineering at the end of the 1st year : subjects—Mathematics, Physics, Chemistry.
2. Final Examination in Engineering Part I at the end of the 2nd year.
3. Final Examination in Engineering Part II at the end of the 3rd year.

The subjects for the Final Examination shall be those prescribed by Regulations made by the Senate after consulting the Faculty of Engineering.

A candidate who has passed both parts of the Final Examination may be awarded First Class Honours, Second Class Honours or a Pass.

Degree of Bachelor of Veterinary Science (B.V.Sc.)

The Course will be of four years' duration and the prescribed examinations shall be:—

1. First Examination in Veterinary Science at the end of the 1st year : subjects—Physics, Chemistry, Biology.
2. Second Examination in Veterinary Science at the end of the 2nd year : subjects—Veterinary Anatomy, Veterinary Physiology, Veterinary Histology and Embryology.
3. Third Examination in Veterinary Science at the end of the 3rd year : subjects—Animal Management, Veterinary Pathology and Bacteriology and Veterinary Parasitology.
4. Final Examination in Veterinary Science—at the end of the 4th year : subjects—Veterinary Medicine, Veterinary Surgery and Animal Husbandry.

A candidate who passes the Second Examination or the Third Examination or the Final Examination at one and the same examination may be awarded First Class or Second Class Honours or a Pass provided that normally it is his first attempt at each examination.

Degree of B.Sc. Anatomy and Physiology

A candidate may be admitted to a course of study for this degree if he has passed the First and Second Examinations for Medical degrees. The course of study is of two years' duration. The subjects for the Final Examination are:—(a) Physics, Chemistry, Zoology; (b) Anatomy, Physiology; at least two subjects must be selected from (a).

The regulations in respect of the award of First Class Honours and Second Class Honours are the same as those that apply to the Bachelor of Arts and Bachelor of Science degree.

Degree of Bachelor of Medicine and Bachelor of Surgery

First Examination for Medical Degrees

For admission to a course of studies for Medical degrees a candidate must pass the First Examination for Medical degrees. A candidate may be permitted to sit at the First Examination for Medical degrees if he has passed a preliminary examination in general education recognised by the General Medical Council of the United Kingdom and has followed the approved course. The subjects for the First Examination shall be Physics, Chemistry and Biology and the candidate must satisfy the Examiners in these subjects at one and the same examination; provided that a candidate who has satisfied the examiners in two of these subjects may, on the recommendation of the Board of Examiners, be permitted to present himself for examination in the third subject and if he then satisfies the examiners in that subject, he shall be deemed to have passed the First Examination.

Second Examination for Medical Degrees

The subjects for the Second Examination shall be Anatomy and Physiology and the candidates must satisfy the examiners in these subjects at one and the same examination: provided that a candidate, who has satisfied the examiners in one of these subjects may, at the discretion of the Senate exercised on a recommendation of the Board of Examiners, be permitted to present himself for examination in the other subject at a subsequent examination and, if he then satisfies the examiners in that subject he shall be deemed to have passed the Second Examination.

A candidate for the Second Examination must complete the prescribed course.

Third Examination for Medical Degrees

A student may be a candidate for the Third Examination if he has passed the Second Examination and since passing the Second Examination has followed the prescribed courses.

The Third Examination shall be in three parts:—

- Part I Pharmacology ;
- Part II Pathology and Bacteriology and
- Part III Public Health and Parasitology and Forensic Medicine.

A candidate may present himself for each part separately and must pass the whole part at one and the same examination :

Provided that a candidate for Part III who has satisfied the examiners in either Public Health and Parasitology or Forensic Medicine may at the discretion of the Senate, exercised on the recommendation of the Board of Examiners, be permitted to present himself for examination in the other subjects on a subsequent occasion and if he then satisfies the examiners in that subject he shall be deemed to have passed Part III.

Final Examination for Medical Degrees

A student may be a candidate for the Final Examination if

- (a) he has passed the Second Examination ;
- (b) he has passed all Parts of the Third Examination ;
- (c) he has been registered as a medical student for not less than five years ; and
- (d) has completed the prescribed courses ; and
- (e) has attained the age of 21 years.

The subjects of the Final Examination shall be :—

- (a) Medicine,
- (b) Surgery, and
- (c) Obstetrics and Gynaecology.

A candidate shall enter all three subjects at one and the same examination ; but if he satisfies the examiners in one or two subjects he may, at the discretion of the Senate exercised on the recommendation of the Board of Examiners, be permitted to enter for the other subject or subjects at a subsequent examination or at subsequent examinations.

A candidate who passes the Final Examination at one and the same examination may be awarded First Class or Second Class Honours or a Pass:

Provided that:—

- (1) A candidate shall not be awarded a First Class or Second Class Honours except at his first attempt at the Examination.
- (2) Unless the Senate resolves for some specified reason before the date of the examination that the candidate may be regarded as a candidate for Honours, he shall not be awarded First Class Honours or Second Class Honours except at the first Final Examination after the termination of his course of study for the Examination.

Degrees and Diplomas in Dental Surgery

The University confers the degree of Bachelor of Dental Surgery (B.D.S.) and the Diploma of Licentiate in Dental Surgery (L.D.S.). A student may be admitted to the degree of Bachelor of Dental Surgery if he has attained the degree standard in the First, Second, Third and Final Examinations in Dental Surgery. In any other case he may be awarded the diploma of Licentiate in Dental Surgery.

First Examination in Dental Surgery

A candidate may be admitted to the First Examination if he has passed a preliminary examination in general education recognised by the General Medical Council of Great Britain and if he has followed an approved course.

A candidate may be exempted from the First Examination if he has passed the First Examination for Medical degrees or where the Faculty of Science reports that a student has followed a course of study in a University or University College of at least one session's duration and has thereafter passed an examination of a standard not lower than that of the First Examination for Medical degrees or of the First Examination, the Senate may in a special case admit the student as a dental student, with exemption from the First Examination. The subjects of the First Examination shall be Physics, Chemistry and Biology and the

candidate must satisfy the examiners in these subjects at one and the same Examination.

Provided that a candidate who has satisfied the examiners in two of these subjects may, on the recommendation of the Board of Examiners, be permitted to present himself for examination in the third subject and if he then satisfies the examiners in that subject, he shall be deemed to have passed the First Examination.

Second Examination in Dental Surgery

The course for the Second Examination shall be of six terms duration. The subjects shall be:—

- Part I (a) Dental Metallurgy,
(b) General Anatomy,
(c) General Physiology.
- Part II (a) Dental Mechanics,
(b) Dental Anatomy and Dental Physiology,
(c) General Pathology and General Bacteriology.

(1) A candidate may enter for Part I at the end of the first year of study and shall not proceed to study for Part II unless either he has passed in Part I or been referred in one subject in that part.

(2) A candidate shall enter for the whole of each part at one and the same examination but may be referred in any subject in either part. A candidate shall not be deemed to be of degree standard unless he passes the whole of a Part at the degree standard at one and the same examination.

(3) A candidate who has passed the Second Examination for Medical degrees shall be exempted from Part I if he passes in Dental Metallurgy and shall be deemed to be of degree standard if he attains the degree standard in that subject.

Third Examination in Dental Surgery

Admission to the Examination is permitted to those who have passed or been exempted from the Second Examination and thereafter has followed the prescribed course.

The subjects of the Third Examination shall be:—

- (a) General Pharmacology.

(b) General Medicine.

(c) General Surgery.

A candidate for the Third Examination shall enter for all subjects at one and the same examination, but may be referred in one subject, provided that a candidate shall not be deemed to have reached degree standard unless he passes in all subjects at the same examination.

Final Examination in Dental Surgery

A dental student may be a candidate for the Final Examination if—

(a) he has passed the Third Examination, and

(b) since passing the Second Examination he has followed the prescribed course for six terms, and

(c) he has attained the age of 21 years.

The subjects for the Final Examination shall be:—Dental Surgery (including Oral Surgery) and Pathology (including Operative Dental Surgery, Orthodontics, Anaesthetics, Radiology and Prosthetics).

A candidate shall enter for both parts at one and the same examination and shall not be deemed to be of degree standard unless he passes in both parts at one and the same examination; but if he satisfies the examiners in one part he may be a candidate for the other part, on a subsequent occasion.

A candidate who attains the degree standard at the First, Second, Third and Final Examinations may be awarded First Class or Second Class Honours or a Pass:

Provided that:—

(1) A candidate shall not be awarded First Class or Second Class Honours except at his first attempt at the Final Examination, and

(2) Unless the Senate resolves for some specified reason before the date of the Examination that the candidate may be regarded as a candidate for Honours, he shall

not be awarded First Class or Second Class Honours, if he has been registered as a dental student for more than four years.

Higher Degrees

The University provides a full course of instruction in post-graduates work leading to the following degrees :—

1. Master of Arts, M.A.
2. Master of Science, M.Sc.
3. Master of Laws, LL.M.
4. Master of the Science of Agriculture, M.Sc.(Agric.)
5. Master of the Science of Engineering, M.Sc. (Eng.)
6. Master of Surgery, M.S.
7. Master of Obstetrics & Gynaecology, M.O.G.
8. Doctor of Medicine M.D. Pathology.
M.D. Physiology.
M.D. General Medicine.

Regulations governing the above courses are available

The following degrees may be conferred under the relevant Regulations :—

1. Doctor of Philosophy, Ph.D.
2. Doctor of Letters, D.Litt.
3. Doctor of Science, D.Sc.
4. Doctor of Laws, LL.D.

8. Scholarships, Exhibitions and Bursaries

Owing to its limited endowments, the University makes available from its general Fund every year a substantial sum for the assistance of students by way of Scholarships, Exhibitions and Bursaries. Nearly 17 per cent of the students are receiving

financial assistance in this way. Scholarships and Exhibitions are awarded only to students who attain a high standard in University Examinations. Bursaries are awarded to deserving students in need of financial assistance. The nominal value of a Scholarship is Rs. 100, and an Exhibition Rs. 50, but the emolument may be increased by the Scholarships Board, on proof of need up to the following maxima :—

					Rs.
Faculty of Arts	..	..	..	..	400
Faculty of Science	..	..	..	..	400
Faculty of Medicine	..	..	..	..	750

Since 1944 a separate Medical Scholarships Fund has been established at the request of the Minister for Health and is fed annually by a sum voted by the State Council.

Bursaries are awarded to those students entering the University who though not of Scholarship or Exhibitions standard show promise of a successful University career and who would not be able to enter the University without assistance.

Endowed Scholarships, Prizes and Medals

The University has at present a few endowments for the award of Scholarships Prizes and Medals. No Scholarship, Prize or Medal is awarded by the Senate unless it is of opinion, after considering the report of the appropriate Board of Examiners that a candidate of sufficient merit has presented himself.

Research Scholarships

Two research scholarships may be awarded by the Senate in each year on the recommendation of the Board of Examiners in each of the Faculties of Oriental Studies, Arts and Science. A research scholarship shall be of the normal value of Rs. 600 and shall be awarded for one year but may be renewed by the Scholarships Board for one year.

Halls of Residence and Hostels

On the 6th October 1952 the Faculties of Oriental Studies and Arts moved into residence at Peradeniya. The Halls of Residence at Peradeniya are :—

Men—

1. Arunachalam Hall, Warden, S. T. Senewiratne, B.Sc. (Agric.)
2. Jayatilaka Hall, Warden, Professor J. L. C Rodrigo, M.A.(Oxon.).
3. Marrs Hall, Warden, H. A. Passe, B.A., Ph.D.(Lond.)
4. James Peiris Hall, Warden, C. W. Amerasinghe, B.A. (Lond.), M.A.(Cantab.)

Women—

5. Hilday Obeyesekera Hall, Warden Miss K. Mathiapparanam, M.A. (Madras).
6. Sanghamitta Hall, Warden Miss K. Mathiapparanam, M.A. (Madras).

Two more Halls Marcus Fernando Hall and Ramanathan Hall are in the course of construction.

In Colombo four Hostels are attached to the University—

1. University Christian Hostel—Warden—Professor C. J. Eliezer, M.Sc., D.Sc.(Lond.), M.A., Ph.D.(Cantab.)
2. Jayatilaka Hall—Union Hostel.
3. Aquinas Hall—Catholic Hostel.
4. Medical Hostel—Warden Dr. K.G. Jayasekera, F.R.C.S (Eng.).

Number of Students in the University on October 1, 1952

Faculties of Arts and Oriental Studies	859
Faculties of Science, Engineering and Medicine	1344

University Student Associations

Student activity is now centred both in Peradeniya and Colombo—

Activities at Peradeniya.—Peradeniya Union Society.

Activities in Colombo.—Science Students' Union, Medical Students' Union and Engineering Students' Union and the University Amalgamated Club Colombo, which controls the Games Activities of all Colombo students.

There are various other Societies to meet the needs of special interests, Academic, Social, Political, Cultural and Religious.



DELHI

Introductory: Character of the University

The University of Delhi owes its existence to the report submitted by a Commission of educational experts presided over by Sir Michael E. Sadler, appointed to report on the utility of, and to suggest improvements in the constitution of the University of Calcutta. Though this Committee was nominally appointed only with reference to the needs and requirements of the Calcutta University, it was anticipated that its report would have a far-reaching effect, in that its recommendations might be adopted by the other Universities of India which were all cast in the same mould as the Calcutta University. The Sadler Commission recommended that the Calcutta University, and the other Universities of India instituted on the model of the London University as purely federal and examining bodies, should be re-organised and that the Universities in India should, in future, be of a unitary and residential type.

Following this recommendation, the University of the Panjab commenced to consider reshaping its character and as the Delhi Colleges were then affiliated to that University the Government of India felt the necessity of providing an independent University for the students of its Capital City. The Delhi University Act (Act VIII of 1922) was the result.

It was brought into force from 1st May, 1922, by a notification published in the Gazette of India dated 10th March, 1922. The Governor-General of India in exercise of the powers conferred on him by the Transitory Provisions of the Act appointed Dr. (Sir) Hari Singh Gaur, Kt., M.A., D.Litt., D.C.L., LL.D., M.L.A., Barrister-at-Law, of Nagpur, as the First Vice-Chancellor of the newly constituted University and issued a notification appointing a provisional Executive Council.

The provisional Executive Council met frequently in the months of May and June, and completed the temporary organization of the University. The Vice-Chancellor prepared draft Ordinances and Regulations which were laid before it and in parts passed after amendment. The rest were considered to be of no immediate urgency and were left to be dealt with by the respective permanent bodies concerned.

Three men's Colleges in Delhi were first recognised as Colleges of the University, *viz.*, St. Stephen's College, Hindu College and Ramjas College, their teaching staffs were accorded recognition in accordance with the terms of the Government of India Notification as teachers of the University. The Faculties of Arts and Science were instituted. Readers were appointed and on 12th June, 1922, an Academic Council was formed.

This Academic Council met constantly during term-time throughout the year. In order to secure adequate deliberation on its own projected courses and regulations, it adopted provisionally those in force in the University of the Panjab which body also kindly undertook to conduct the examination of Delhi University students for the year 1923.

By the middle of February 1923, the Court was constituted. By the end of March, the permanent Executive Council was formed. Thus by the end of summer of 1923, the University was fully organised. In May, 1924, the Faculty of Law was instituted. The Faculty of Medicine was instituted in 1944.

The original idea of the Delhi University was the establishment and incorporation of a unitary teaching and residential University at Delhi. It was intended to provide for a local University on the model recommended, in the case of Dacca, by the Calcutta University Commission. But the University of Delhi, could not be developed with a purely unitary University inasmuch as it recognised several constituent colleges in which instruction was provided under conditions prescribed in the Statutes and in which provision was made for the residence of students. Although it had been freed from the inevitable defects of a purely affiliating institution, yet at the same time it had given its constituent colleges ample scope to develop their resources in cooperation with each other and with the University itself. Since 1933, when the University was housed in the Old Viceregal Lodge, and plots of land in the Estate were earmarked for the constituent colleges, the idea of a federal University had gradually taken shape, and it was the intention of the Government of India and of the authorities of the University, that the University should be transformed into one of the federal type, in which each constituent college should be prepared to forego some measure of its autonomy in order to share in and contribute to the life and government of the University as a whole.

To implement this an amendment of Act VIII of 1922, by Act No. XXIV of 1943, was passed by the Central Legislature

which received the assent of the Governor-General on 10th September, 1943. The amending Act *inter alia* provided for an alternative procedure for the appointment of the Vice-Chancellor, the revision of the Constitution of the Committee of Selection concerned with the appointment and recognition of Teachers and the institution of a three-year degree course in Arts and Science. The extension of the degree course from two to three years was a part of the scheme of reconstruction of the Higher Secondary Education in Delhi which had been expected by the University as well as by the Government of India. The scheme included *inter alia* three fundamental principles, namely, (1) the abolition of the Intermediate Examination, (2) the Extension of the High School Course by one year (that is, extension of the School Course from 10 to 11 years), (3) the institution of a Three-year course in the University.

The Delhi University Act has been further amended by Act No. V. of 1952 which received the assent of the President on 23rd February, 1952. The University of Delhi has now been made a "teaching and affiliating University". The University would have "Constituent Colleges and Affiliated Colleges".

'Affiliated College' means an institution recognised by the University in accordance with the provisions of this Act and the Statutes in which instruction is provided in accordance with the provisions of the Statutes and Ordinances upto Bachelor's degree but exclusive of Honours and Post-graduate degrees.

'Constituent College' means an institution recognised as such by the Executive Council in accordance with the provisions of this Act and the Statutes.

The new Act has also made organisational changes; some of which are on the lines of the recommendations of the Universities Commission. The constitution and the powers of the principal authorities, *viz.*, the Court, the Executive Council and the Academic Council have been changed. The Finance Committee has been added as an authority of the University. The President who was the Chancellor under the old Act will be the Visitor of the University and the important powers of the Chancellor are vested in him. There will be a Chief Rector. The Chancellor will be elected by the Court of the University. The new Constitution has avoided the system of election of members and substituted the principle of seniority by rotation to the membership of the principal authorities.

Teachers employed by the College are 'recognised' by the University.

A recognised teacher can impart instruction only in such subjects as the Executive Council of the University on the recommendation of the Committee of Selection permits. All recognised teaching in connection with the courses of study is conducted under the control of the University. The courses of study and the courses of reading are prescribed by Ordinances and Regulations, respectively.

The jurisdiction of the University is restricted to the Delhi State.

The following are the Colleges and Institutions recognised by the University :—

(a) **Constituent Colleges**

1. St. Stephen's College, Imperial Avenue. Delhi-8.
2. Hindu College, Kashmere Gate, Delhi-6.
3. Ramjas College, Daryaganj, Delhi-7.
4. Delhi College, Ajmeri Gate, Delhi-6.
5. Shri Ram College of Commerce, Daryaganj, Delhi-7.
6. Indraprastha College for Women, Alipore Road, Delhi-8.
7. Miranda House, Probyn Road, Delhi-9.
8. College of Nursing, Jaswant Singh Road, New Delhi-2.
9. Central Institute of Education, Probyn Road, Delhi-9.
10. Hansraj College, Chitragupta Road, New Delhi-2.
11. Central College of Agriculture, Indian Agricultural Research Institute, Pusa, New Delhi-5.
12. Nirmala College, Qutab Road, Delhi-6.
13. Lady Hardinge Medical College, New Delhi-2.
14. Shri Guru Teg Bahadur Khalsa College, Karol Bagh, New Delhi.

(b) **Affiliated College**

15. Deshbandhu College, Kalkaji, Delhi.

(c) **Recognised Institutions**

16. Delhi School of Economics, University of Delhi, Probyn Road, Delhi-9.
17. Delhi School of Social Work, University Road, Delhi-8.
18. Lady Irwin College, Sikandra Road, New Delhi.
19. Delhi Polytechnic, Kashmere Gate, Delhi.

Officers and Staff of the University

Visitor.

The President, Republic of India.

Chancellor.

Dr. S. Radhakrishnan, M.A. D. Litt., LL.B., F.B.A.
Vice-President of India.

Pro-Chancellor.

Shri M. Patanjals Sastri, Chief Justice of India.

Vice-Chancellor.

Dr. G. S. Mahajani, M.A., Ph.D.

Treasurer.

Shri M.S. Bhatnagar, Joint Secretary, Government of
India, Ministry of Finance, New Delhi.

Registrar.

Shri T. P. S. Iyer, M.A.

Dean of the Faculty of Arts.

Dr. Ram Behari, M.A., Ph.D., Sc.D.

Dean of the Faculty of Science.

Dr. D. S. Kothari, M.Sc., Ph.D.

Dean of the Faculty of Law.

Professor L. R. Sivasubramanian, M. L.

Dean of the Faculty of Medicine.

Dr. R. Viswanathan, B.A., M.D., M.R.C.P. (Lond.),
T.D.D. (Wales), F.G.C.P. (Amer.).

Dean of the Faculty of Education.

Shri A. N. Basu, M.A.

Dean of the Faculty of Agriculture and Forestry.

Dr. T. J. Mirchandani, Principal, Central College of Agriculture, I.A.R.I., Delhi.

Dean of the Faculty of Social Sciences.

Dr. V. K. R. V. Rao, M.A., Ph.D., D.Litt.

Dean of the Faculty of Technology.

Shri S. C. Sen, B.Sc. (Engg.)

Proctor.

Dr. Ram Behari, M.A., Ph.D., Sc.D.

Librarian.

Shri S. Das Gupta, M.A. (Delhi), B.A. (Cantab.)

The following is the teaching staff of the University appointed and paid by the University.

Faculty of Arts

1. Dr. Ram Behari, M.A., Ph.D., Sc.D., Professor of Mathematics.
 2. Dr. Bisheswar Prasad, M.A., Ph.D., D.Litt., Professor of History.
 3. Dr. N. V. Banerjee, M.A., Ph.D. Professor of Philosophy.
 4. Dr. P. Saran, M.A., Ph.D., Reader in History.
 5. Dr. Nagendra Nagaich, M.A., D.Litt., Reader in Hindi.
 6. Dr. G. J. Chacko, M.A., Ph.D., Reader in Political Science.
 7. K.A. Fariq, M.A., Ph.D., Reader in Arabic and Persian.
 8. Shri N.N. Chaudhuri, M.A., Reader in Sanskrit.
 9. Dr. Khwaja Ahmed Faruqi, M.A., Ph.D., Reader in Urdu.
- Five Lecturers.

Faculty of Social Sciences

1. Dr. V. K. R. V. Rao, M.A., Ph.D., D.Litt., Professor of Economics.
 2. Dr. B. N. Ganguli, M.A., Ph.D., Professor in International Trade.
- Three Lecturers.

Faculty of Science*Physics—*

1. Dr. D. S. Kothari, M.Sc., Ph.D., Professor of Physics.
2. Dr. R. G. Majumdar, D.Sc., Professor of Physics.
3. Dr. P. K. Kichlu, D.Sc., F.N.I., Professor of Physics.
4. Dr. N. K. Saha, M.Sc., D.Sc., Reader in Physics.
5. Dr. R. N. Rai, M.Sc., D.Phil., Reader in Physics.
6. Dr. P. L. Kapoor, M.Sc., Ph.D., Reader in Physics.
7. Dr. F. C. Auluck, M.A., D.Sc., Reader in Physics.

Eighteen Lecturers.

Chemistry—

1. Dr. T. R. Seshadri, M.Sc., Ph.D.
2. Dr. R. P. Mitra, D.Sc., Reader in Chemistry.
3. Dr. B. D. Jain, M.Sc., Ph.D., Reader in Chemistry.
4. Dr. K. B. L. Mathur, D.Sc., A.R.I.C., Reader in Chemistry.

Sixteen Lecturers.

Zoology—

1. Dr. M. L. Bhatia, Ph.D., D.Sc., Reader in Zoology.
2. Dr. L. N. Johri, D.Sc., Reader in Zoology.

Nine Lecturers.

Botany—

1. Dr. P. Maheshwari, D.Sc., F.A.Sc., F.N.I., Professor of Botany.
2. Dr. J. J. Chinoy, M.Sc., Ph.D., D.I.C., Reader in Botany.
3. Dr. B. M. Johri.

Ten Lecturers.

Anthropology—

1. Dr. P. C. Biswas, M.Sc.(Cal.), Ph.D., (Berlin), Reader in Anthropology.

Two Lecturers.

Faculty of Law

1. Prof. L. R. Sivasubramanian, M.L., Professor of Law.
2. Dr. Hamid Ali, LL.D., Bar-at-Law, Reader in Law.

Twenty Lecturers.

Russian Department

1. Mr. V. Shibayev, Reader in Russian.
- Three Lecturers.

Library Science

1. Mr. S. Das Gupta, M.A., B.A. (Cantab.).

One part-time Lecturer.

Constitution of the University

The constitution of the University is defined by the Act and the Statutes. The Vice-Chancellor is the principal executive and academic officer of the University.

The following are the authorities of the University :—

1. The Court.
2. The Executive Council.
3. The Academic Council.
4. The Finance Committee.
5. The Faculties of Arts, Science, Law, Medicine, Agriculture and Forestry, Education, Social Sciences and Technology.

The constitution and the terms of office of the members of

the Court, the Executive Council, the Academic Council, the Faculties and the Finance Committee are prescribed by Statutes.

The Court consists of about 100 members. The Court is the supreme authority of the University and has the power to review the acts of the Executive Council and the Academic Council (save when these authorities have acted in accordance with the powers conferred upon them under this Act, the Statutes or the Ordinances) and can exercise all the powers of the University not otherwise provided for by this Act or the Statutes.

Its powers are :—

- (a) To make, amend or repeal the Statutes.
- (b) To approve any draft submitted by the Executive Council, and pass the Statutes or reject it or return it to the Executive Council for reconsideration either in whole or in part, together with any amendments which it may suggest.

The Executive Council is the executive body of the University. It consists of about 18 (eighteen) members and exercises among others the following powers :—

- (1) To have, subject to the Control of the Court, the management and administration of the revenue, finances, accounts, investments, property and business of the University and the conduct of all administrative affairs of the University not otherwise provided for.
- (2) The institution of professorships, lecturerships and other teaching posts as may be proposed by the Academic Council.
- (3) The appointment and recognition of teachers on the recommendation of the Committee of Selection.
- (4) The appointment of all examiners after considering the recommendation of the Committee of Selection.

The Academic Council which consists of about 45 members is the academic body of the University and subject to the provisions of the Act, the Statutes and the Ordinances, has the

control and general regulation of, and is responsible for the maintenance of, standards of instruction, education and examination within the University. It advises the Executive Council on all academic matters.

Each Faculty, subject to the control of the Academic Council, has charge of the teaching and the courses of study and the research work in such subjects as may be assigned to it by the Ordinances.

Each Faculty constitutes Committees of Courses and Studies in such subjects as are assigned to it. The Committees make recommendations for—

1. The courses of study, curricula and syllabuses.
2. The appointment of examiners.

Approximate Number of Students in the University

				Nov. 1949	Nov. 1950	Oct. 1952
Pre-Medical	...	...	...	374	486	532
B.A. (Pass) & B.Sc. (Pass)	...	...	...	1,842	2,130	2,599
B.A. (Hons.) & B.Sc. (Hons.)	...	...	...	1,607	1,525	1,643
B.Com.	...	...	...	...	402	585
M.A.	...	...	...	394	531	610
M.Sc.	...	...	...	150	108	144
Law	...	...	...	564	819	911
M.B.B.S.	...	...	...	238	224	227
B.Ed.	...	...	...	72	88	68
Russian	...	...	...	71	71	101
Library Science	...	...	...	10	16	17
D.T.D.	...	...	...	12	14	15
M.Com.	...	...	...	15	13	20
M.Ed.	...	...	...	16	21	17
Ph.D.	...	...	...	87	90	136
Technology	...	...	...	—	—	199
French	...	...	...	—	—	58

**Number of Successful candidates in the University
Examinations held in April and May 1952**

<i>Examinations.</i>	<i>No. of Candi- dates appeared.</i>	<i>No. of Candi- dates passed.</i>	<i>Compt. or pass degree cases</i>
1. Qualifying	1,095	510	66
2. Pre-Medical	299	189	25
3. B.A. (Pass)	515	246	1
4. B.Sc. (Pass)	184	119	5
5. B.A. (Hons.)	424	324	58
6. B.Sc. (Hons.)	154	130	14
7. M.A. (Preliminary)	25	16	—
8. M.A. (Final)	246	186	—
9. M.Sc. (Previous)	74	67	—
10. M.Sc. (Final)	49	45	—
11. Previous Examination in Law	407	292	23
12. LL.B. (Final)	438	281	8
13. Certificate of Proficiency in Law.	103	88	—
14. B.C.L. I & II	4	3	—
15. Pre-University Agriculture	1	1	—
16. B.Sc. Hons. I year (Agri.)	47	14	19
17. Do. II year	50	31	9
18. Do. III year	30	25	—
19. B.Sc. Hons. Nursing I year	22	17	—
20. Do. II year	17	17	—
21. Do. III year	17	13	—
22. Do. IV year	15	15	—
23. Bachelor of Teaching	75	62	11
24. Master of Education	19	17	—
25. Certificate of Proficiency in Russian Language	15	10	—
26. Diploma in Russian Language	7	6	—
27. Master of Library Science	1	1	—
28. Diploma of Library Science	20	20	—

<i>Examinations.</i>	<i>No. of Candi- dates appeared.</i>	<i>No. of Candi- dates passed.</i>	<i>Compl. or pass degree. cases</i>
29. M.B.B.S. Examination, 1st Profes- sional	41	38	—
30. M.B.B.S. Examination, 2nd Pro- fessional	42	38	—
31. M.B.B.S. Examination, 3rd. professional	54	35	—
32. Final M.B., B.S.	33	28	—
33. B.Sc. Home Sc. I year	41	20	12
34. Do. II year	20	14	3
35. Do. III year	9	7	—
36. Certificate in Italian	1	1	—
37. Certificate in French	16	15	—
38. LL.M. (Part I)	6	4	—
39. LL.M. (Part II)	3	2	—

Scholarships, Medals and Prizes

The Executive Council which has the authority to fix the Number of senior and other scholarships have established under the All-India scheme the following Scholarships and Fellowships:—

- (a) (i) Six entrance scholarships of the value of Rs. 100 p. m. each instituted under the All-India Scheme, awarded annually on the result of a competitive examination, to be held at various centres, throughout India.
- (ii) Six post-graduate scholarships of Rs. 100 p. m. and three Research Fellowships of Rs. 175 p. m. instituted under All-India Scheme, to be awarded on the recommendations of Selection Committee.
- (b) In addition to the above All-India Scholarships the University awards a number of other scholarships to Hons. and post-graduate students. They are:—
 - (a) One Senior Scholarships in History of the value of

Rs. 100 p. m. for two years for the encouragement of research or original work in History.

- (b) One Senior Scholarship in Economics of the value of Rs. 100 p. m. tenable for one year but renewable for a second year on the recommendation of the Head of the Department and the Dean of the Faculty concerned.
- (c) One Kikabhai Premchand Senior Scholarship in Economics of the value of Rs. 100 per mensem for two years for the encouragement of original research work in Economics.
- (d) Six University entrance scholarships of value of Rs. 25 p. m. tenable for three years in the Hons. classes in the University.
- (e) Four University scholarships of the value of Rs. 30 p. m. tenable for two years in the M.A. classes on the result of B.A. Hons. examination in order of merit.
- (f) Four University scholarships of the value of Rs. 30 p. m. tenable for two years in the M.Sc. classes on the result of B.Sc. Hons. examination in order of merit.
- (g) Three scholarships of the value of Rs. 30 p. m. in the Faculty of Law tenable for one year :—
 - (i) One on the result of the B.A. Hons. tenable in the Previous class.
 - (ii) One on the result of the Previous examination in Law tenable in the LL.B. class.
 - (iii) One on the result of LL.B. Final examination tenable in the LL.M. class.

Endowed Scholarships

1. As a result of the abolition of the Intermediate Course the Puran Chand Khatri Scholarships which used to be awarded to students who had passed the Matriculation or equivalent Examination, and the Intermediate Examination have been

of the University who are graduates and are *in statu pupillary* at the time of notification shall be eligible to compete.

The Sir C. P. Ramaswamy Aiyer English Essay Prize: the Prize to be awarded each year to the author of the best essay in English on a subject determined by the Vice-Chancellor. Students who have not exceeded five years after the date of their first entry into the University shall be eligible to compete.

The Leela Bengali Essay Prize: The Prize of the value of Rs. 100 to be awarded each year to the author of the best essay in Bengali on a subject determined by the Vice-Chancellor. Students reading in the Post-Graduate classes of the University and graduates of not more than five years' standing shall be eligible to compete.

The Narsing Das Prize for Bengali: The Prize of the value of Rs. 1,000 to reward and encourage the writing of Bengali books and theses in Arts and Science to be awarded alternately to Arts and Science subjects, to the writer whose published production is considered to be the best during the year of award. In the absence of a suitable candidate in any year, the award may be changed from Science to Arts and *vice versa*.

L. Banarsidass Charity Trust Prize: The Prize of the value of Rs. 100 in the form of books to be awarded to the student who secures the highest percentage of marks in the M.Sc. Examination, provided he has been placed in the first division.

The Central Government Prize for Agriculture: The Prize of the value of Rs. 100 in the form of books to be awarded to the candidate who secures the highest percentage of marks in the B.Sc. (Hons.) Agriculture Examination obtaining a first division.

The Central Government Prize for Agriculture: The Prize of the value of Rs. 100 in the form of books to be awarded to the candidate who secures the highest percentage of marks in "Agriculture". For the purpose of this award, the position shall be determined by the aggregate of marks obtained in "Agriculture" in the I, II and III Year Examinations.

Library, Museums, Laboratories

Library—

The University Library has been reclassified according to Colon System of classification which the University has accepted.

The total number of volumes in the Library excluding Calenders, etc., of different Universities on 31st March, 1952 was 63,443. The total number of new accessions during the period April 1951—March 1952 was 2669 which includes volumes obtained free. The number of periodicals received including free copies was 628.

Laboratories—

With the construction of the third quadrangle of the Science Block the Physics and Chemistry Laboratories have now been completed and provide ample scope for Laboratory training to a large number of Honours and Post-graduate students. In addition to this the construction of a separate Biology Laboratory has been completed. The Department of Anthropology is housed in the Arts Faculty Building.

Provision for Research

In order to encourage students to obtain a research degree in Arts and Science the degree of Doctor of Philosophy (Ph.D.) was instituted in 1944.

Similar provision exists for obtaining a research degree in Law also.

Subject to the general guidance of the Academic Council Post-graduate and Research studies in the University are organised by two Boards of Research Studies—one for the Humanities and the other for Sciences.

Military Training

The 1st Delhi Bn., U. O. T. C. has, since July, 1948, been transformed into the National Cadet Corps (N. C. C.) (senior) but the number of students that can receive military training is the same as before, *i.e.*, 4 companies with a normal authorised strength of 317 students.

Associations in the University

A University Athletic Association has been formed to develop and conduct games, athletics and adequate sports in the University. It also conducts the University Tournaments open to Colleges. There is a sports officer appointed by the University in charge of the Athletic Association. Besides, the Constituent Colleges have a number of Societies, Clubs and Unions for social and intellectual intercourse.

Residence

The University has two Halls for the residence of post-graduate men students within the University area.

Gwyer Hall

The Gwyer Hall has 107 rooms and provides for the residence of 92 post-graduate students. Besides these, there are 15 bigger rooms for the residence of research students and teachers. The Hall has a well-furnished Common Room, and a spacious Dining Hall. The management is vested in the Provost.

Jubilee Hall

The building consists of 59 single rooms each 16 ft. \times 16 ft. which form part of the military barracks within the University area. There are 59 resident students, one in each room.

A doctor is attached to the Hall. The Master of the Hall is responsible for discipline.

Residence for students is also provided by the different Constituent Colleges in the Boarding Houses attached to the respective Colleges.

University Union

The Delhi University Union was inaugurated by Pandit Jawaharlal Nehru, Prime Minister of India, on the 9th April, 1949.

Provident Fund

Every employee of the University holding a substantive appointment and receiving a salary of Rs. 30 per mensem or more is required to join the University Provident Fund as a subscriber. Subscriptions to the Provident Fund are deducted monthly from the pay bill of each subscriber at the rate of 8 per cent of his monthly pay. The University makes on behalf of each subscriber a monthly contribution to the Fund at the rate of 12 per cent of the pay for those employed before 1944, 8 per cent for those employed before 1952 and $6\frac{1}{4}$ per cent thereafter.

Finance

The income and expenditure of the University for the year 1951-52 as compared to that of the preceding year was as follows :—

Year.	Income			Expenditure		
	Rs.	a.	p.	Rs.	a.	p.
1950-51	17,77,246	0	0
1951-52	19,76,420	11	9
				17,55,226	0	0
				18,99,301	10	1

The income shown above includes a Government grant of rupees 13,30,500. The details of the grant received are as under :—

	Rs.
(1) Block Grant	11,60,000
(2) Repayment of Loans	89,000
(3) School of Economics	38,500
(4) Development Grant (Non-recurring)	26,000
(5) D. T. D. Course	11,000
(6) Special Government grant for Delegates from Commonwealth Universities	6,000
Total	13,30,500

Admission to the University

The stage of admission to the University has been a difficult problem for a long time as the present standard of the Matriculation or the High School examination is not sufficiently high for direct admission to the three-year degree course of the University. The Board of Higher Secondary Education in Delhi has, by improving the High Schools and by extending the School Course by one year, (*i.e.*, from 10 to 11 years) instituted the Higher Secondary School Examination which has been recognised by the University as a Qualifying Test for admission to a three-year degree course.

A student must be at least 16 years of age before

the 1st October of the year in which he seeks admission to the University.

The last day of admission every year is ordinarily 20th July. Late admissions may be made till 31st July at the discretion of the Principal concerned and till the 10th August with the approval of the Vice-Chancellor.

The Preparatory Course and the Qualifying Examination

The University has, as a temporary measure, authorised the Colleges of the University to admit students who have passed a Matriculation Examination of an Indian University or an Examination recognised as equivalent thereto to a preparatory course of one year leading to a Qualifying Examination for admission to the University. The University conducts in the month of April every year a Qualifying Examination for admission to the University.

After the introduction of the three-year degree course, the Intermediate examination in Arts and Science has been abolished. However, for students who desire to qualify for admission to a medical college provision has been made in some colleges for a Pre-Medical course.

For students desiring to qualify for the Engineering course, provision for a Pre-Engineering course has been made in the Delhi Polytechnic.

Admission Examination

Provision has also been made for those students who have to migrate to this University after passing the first year of an Intermediate course to get admission to the first year of the three-year degree course provided they pass an Admission Examination conducted by this University. The Academic Council may also permit students to be exempted from the first year of the three-year degree course if they (the students) wish to join this University after passing the Intermediate Examination.

Women's Education

There are five Women's Colleges, the Indraprastha College for women, Lady Hardinge Medical College, Lady Irwin College, College of Nursing and the University-maintained College for women called "Miranda House". Owing, however, to the

special conditions of Purdah obtaining in Delhi, provision has been made for permitting women students to appear in the examinations of the University without undergoing a regular course of study in a College of the University under conditions determined by Ordinances and for this purpose a University Women Students' Delegacy has been established.

Students' Information Bureau and its Activities

The University does not maintain a Students' Information Bureau.

Provision for Safeguarding Health, Medical Inspection, Discipline, etc.

There is a Board which looks after the residence, health and discipline of students and there is one Proctor appointed by the Executive Council. A programme of medical inspection of students is under the consideration of the authorities of the University.

Courses of Studies Examinations and Degrees

The following degrees are given by the University :—

- | | |
|---|---|
| (a) Faculty of Arts and the Faculty of Social Sciences. | B.A. Pass and Hons. B.Com. M.A. (Lib.Sc.); M.A., M.Com. and Ph.D. |
| (b) Faculty of Science | B.Sc. Pass and Hons., B.Sc. Hons. Nursing; B.Sc. Home Science, M.Sc., Ph.D. |
| (c) Faculty of Law | LL.B., B.C.L. (Honours Course) LL.M., LL.D. |
| (d) Faculty of Education | B.Ed., M.Ed. and Ph.D. |
| (e) Faculty of Agriculture and Forestry | B.Sc. Hons. in Agriculture. |
| (f) Faculty of Medical Scs. | M.B., B.S. |
| (g) Faculty of Technology | B.E., B.Ch.E., B.Text., B.Arch. |

In addition to the above degrees, the University awards Certificate of Proficiency and Diploma in Russian (two and three-year courses), certificate in German, French and Italian, a Diploma in Hindi, a Diploma in Punjabi, a Diploma in Tuberculous Diseases, a Diploma in Library Science (a one-year post-graduate course). There is a Pre-medical I.Sc. course for the benefit of students who want to join a Medical College.

Qualifying Examination

The Preparatory Course leading to the Qualifying Examination is of one year's duration. This is a post-matriculation course.

The subjects for the examination are as follows :—

Compulsory Subjects—

Every candidate must take the following three papers :

Two papers in English.

One paper in a Modern Indian Language, including an Essay.

Provided that candidates whose mother-tongue is other than Hindi, Urdu, Bengali, Punjabi or Sindhi shall be permitted to take an additional paper from the list of elective or additional subjects in lieu of the paper in a Modern Indian Language.

Elective Subjects

Subject as above, every candidate must also take, in addition to the three compulsory papers, three papers from any one of the following groups :—GROUP A. Sanskrit, Arabic, or Persian, Elements of Economics, Civics, General History, Elements of Commerce, Geography (including Commercial Geography), Mathematics (Algebra and Trigonometry). GROUP B. Mathematics (Algebra and Trigonometry), Physics, Chemistry, Elements of Biology.

The course of study in Physics, Chemistry and Elements of Biology includes demonstration and practical work, and there is a practical test in the examination.

Each paper is of three hours' duration and carries 100 marks.

The minimum number of marks required to pass the examination is thirty-three per cent in each subject.

Candidates must pass in the practical test as well as in the written paper in a Science subject.

A candidate who gets 40 per cent of the aggregate number of marks but fails in one subject only obtaining not less than 25 per cent marks in that subject is placed in compartment.

The examination fee payable by a candidate is Rs. 15.

Pre-Medical Examination

The course is of two years' duration and is roughly of the I.Sc. (Medical Group) standard.

Every candidate is required to take four subjects only as follows, each carrying 150 marks:—(1) English, (2) Physics (including Mathematics), (3) Chemistry, (4) Biology.

The minimum number of marks required to pass this examination is thirty-three per cent in each subject. For each Science subject this percentage is required separately in written and practical work.

Candidates who gain three hundred and sixty marks or more are placed in the First Division: those who gain not less than two hundred and seventy marks in the second Division, and all below in the Third Division.

Any candidate who has obtained 40 per cent of the aggregate number of marks but has failed in one subject only, obtaining not less than 25 per cent in that subject, is admitted to an examination in that subject only towards the end of the year, or, if he fails then, at the next University Examination, on payment of a fee of twenty-five rupees, or in the case of an exempt student of thirty rupees, on each occasion, and if he passes in that subject in either of these examinations he is deemed to have passed the Pre-Medical Examination.

Provided that candidates to whom this concession is granted may be allowed to read for the Degree of Bachelor of Science in a College.

Any candidate who has passed the Intermediate Examination of an Indian University in the Arts or the Science Faculty, and wishes to qualify for admission to a Medical College may, in any subsequent year, appear in any additional test in the remaining subjects so as to make up the group of subject required for admission to such college.

Admission Examination

With the abolition of the Intermediate Course, the University has instituted an Admission Examination for the benefit of those students who want to migrate to this University from any other recognised University or Board after completing the first year of the Intermediate Course. The Examination is held in July. Every candidate is examined in English, a Modern Indian Language and three other subjects, one paper in each. The syllabus is of a general nature suitable to the first-year students of other Universities and Boards. Every candidate in order to pass, must obtain at least 33 per cent marks in the aggregate.

Bachelor of Arts (Pass)

The course is of three years' duration.

Every candidate is required to take English and one of the following—Modern Languages, namely, Hindi, Urdu, Bengali, Punjabi and Sindhi (additional papers in lieu of this may, in some cases, be taken) and one of the following groups of two subjects:—(i) History and Economics (ii) History and Philosophy, (iii) History and a Classical Language (Sanskrit, Arabic or Persian), (iv) Economics and Philosophy (v) Philosophy and a Classical Language (Sanskrit, Arabic or Persian), (vi) Mathematics and Economics, (vii) Economics and a Classical Language (Sanskrit, Arabic or Persian), (viii) Mathematics and Philosophy, (ix) Mathematics and a Classical Language (Sanskrit, Arabic or Persian), (x) Economics and Commerce, (xi) History and Commerce, (xii) Mathematics and Commerce, (xiii) History and Mathematics (xiv) History and Political Science, (xv) Philosophy and Political Science (xvi) Economics and Political Science, (xvii) Law and Political Science.

Candidates who cannot offer any of the Modern Indian Languages recognised by the University, for valid reasons may offer any two of the three papers in a subject which they have not otherwise offered.

There are three papers in each subject except in a Modern Indian Language in which the number of papers is two.

Each paper carries 100 marks.

Provided that in Commerce, a candidate, in addition to

obtaining 33 per cent in the three papers shall obtain not less than 25 per cent in Paper I (Book-keeping and Accountancy). The minimum marks required to pass this examination is as follows :—

Forty per cent in English and a Modern Indian Language, thirty-three per cent in each of the other subjects, and forty per cent in the aggregate.

Candidates who pass the examination with sixty per cent or more marks in the aggregate are declared to have passed with "Distinction", the other successful candidates are placed in the "Pass List" without any classification.

Any student who has obtained at least forty-five per cent of the aggregate marks, but has failed in one subject only, obtaining not less than thirty per cent of the mark in that subject, may be declared to have passed the examination if for every mark by which he is short of the minimum pass marks in that subject, he has scored three additional marks in the aggregate above forty-five per cent.

Any candidate who has obtained not less than forty-five per cent of the aggregate marks, but has failed in one subject only obtaining not less than twenty-five per cent of the mark in that subject, may be admitted to a Supplementary Examination in that subject only, or if he fails to pass or fails to present himself at the Supplementary Examination, then, at the next annual examination on payment, on each occasion of the same fees as prescribed for the B.A. (Pass) Examination and he shall be declared to have passed the B.A. (Pass) Examination of the year in which he successfully completes the examination if he secures in that subject the percentage of marks as hereinafter required ;

Forty-five per cent of marks in English and in any of the Modern Indian Languages, and forty per cent in the other subject.

Compulsory Test in Hindi

Every person admitted from the session commencing in July, 1952, to any of the courses of study for the degrees named

below shall be required to pursue a course of study and to pass an examination in Hindi :—

- B.A. (pass).
- B.Sc. (pass).
- B.Sc. Home Science.
- M.B.,B.S.
- B.A. and B.Sc. (Hons.)
- B.Sc. Hons. in Nursing.
- B.Sc. Hons. in Agriculture.
- B.Com.

- (ii) The examination in Hindi shall consist of one paper and the standard and scope shall be those set out hereinafter.

The marks required to pass the examination shall be 33 per cent.

(iii) The examination in Hindi may be taken at the end of the first, second or subsequent year but no person shall be declared to have passed any of the degree examinations named in sub-clause (i) unless he has passed the examination in Hindi or has been exempted under sub-clause (iv) below.

(iv) Persons who have passed any of the following examinations with Hindi as a subject for the examination concerned, shall be exempted from the provisions laid down in Clauses (i) and (ii) above :—

- (a) Qualifying or Admission Examination held by the University of Delhi.
- (b) The Higher Secondary Examination conducted by the Board of Higher Secondary Education, Delhi.
- (c) The Intermediate Examination of an Indian University.
- (d) Any examination recognised as equivalent to (a), (b) or (c) above.
- (e) The Oriental Titles or Diploma Examinations of an Indian University incorporated by any law for the time being in force.

(v) The Examination shall include the following :

Grammar	...	...	...	...	...	10 marks
Composition	...	...	...	...	...	40 marks
Translation of passages from English to Hindi						
and <i>vice versa</i>	...	...	...	...	...	25 marks
Books for rapid reading	...	...	...	...	...	25 marks

Note.—1. Books for rapid reading are not meant for intensive study. They are meant as books for general reading only.

2. The test in the Examination shall consist in expression of simple ideas on the part of students in an elementary form of the Hindi language.

Bachelor of Arts (Honours)

The course is of three years' duration.

The following is the distribution of papers in the subjects of the Honours Course :—(a) English—Main Subject 8 papers, Subsidiary Subjects 4 papers, (b) History—Main Subject 8 papers, Subsidiary Subjects 4 papers, (c) Economics—Main Subject 8 papers, Subsidiary Subjects 4 papers, (d) Philosophy—Main Subject 8 papers, Subsidiary Subjects 4 papers, (e) Commerce—Main Subject 9 papers, Subsidiary Subjects 2 papers, (f) Mathematics—Main Subject 8 papers, Subsidiary Subjects 4 papers, (g) Philosophy, Politics and Economics (combined)—Main Subject 10 papers, Subsidiary Subject 1 paper, (h) Sanskrit—Main Subject 8 papers, Subsidiary Subjects 4 papers, (i) Arabic—Main Subject 8 papers, Subsidiary Subjects 4 papers, (j) Persian—Main Subject 8 papers, Subsidiary Subjects 4 papers, (k) Urdu—Main Subject 8 papers, Subsidiary Subjects 4 papers, (l) Hindi—Main Subject 8 papers, Subsidiary Subjects 4 papers, (m) Politics and Law—Main Subject 8 papers, Subsidiary Subjects 4 papers, (n) Political Science—Main Subject 8 papers, Subsidiary Subjects 4 papers (o) Punjabi—8 papers, Subsidiary—4 papers.

Scale of Marks

Every paper in an Honours Course carries 100 marks

Classification of Results

(1) Candidates who pass in an Honours Course are classified in three divisions.

(2) The minimum number of marks required to pass an examination in an Honours Course is 40 per cent in the aggregate of the papers in the Main subject.

The minimum percentage of marks required to pass the examination in a Subsidiary Subject is 33.

(3) Candidates who secure less than 50 per cent marks in the Main Subject are placed in the third division.

(4) Candidates who secure 50 per cent or more but less than 60 per cent marks in the Main subject are placed in the second division.

(5) Candidates who secure 60 per cent marks or more in the Main Subject are placed in the first division.

Bachelor of Science (Pass)

The course is of three years' duration :—

Every candidate shall be required to take :—

- (1) A test in English at the end of the first academic year.
- (2) A qualifying Test in anyone of the subjects under Group "A" at the end of the second academic year—One Paper
- (3) An examination in any three of the subjects under Group 'B' at the end of the third academic year.

Group 'A'

History of science and scientific Method, Hindi, Urdu, Bengali, Punjabi and Sindhi.

Group 'B'

Mathematics

Paper I.—Algebra, Trigonometry and Analytical Geometry of two Dimensions.

Paper II.—Differential and Integral Calculus and Differential Equations.

Paper III.—Statics, Dynamics and Hydrostatics—

Note.—Each of the written papers shall be of three hours' duration and carry 100 marks.

Physics

Paper I.—General Properties of Matter, Light and Heat.

Paper II.—Sound, Electricity and Magnetism.

Paper III.—Practical, Test.

Note.—Each of the written papers shall be of three hours' duration and carry 100 marks. The Practical Test shall be of five hours' duration and carry 100 marks out of which 20 marks shall be reserved for the Laboratory Records of the candidate.

Chemistry

Paper I.—Inorganic and Physical.

Paper II.—Organic and Physical.

Paper III.—Practical Test.

Note.—Each of the written papers shall be of three hours' duration and carry 100 marks. The Practical Test shall be spread over two days each of four hours' duration. The Practical Test shall carry a total of 100 marks out of which 20 marks shall be reserved for the Laboratory Records of the candidate.

Botany

Paper I.—Morphology and life history of Cryptogams and Phanerogams.

Paper II.—Taxonomy, Physiology, Ecology and General Biology.

Paper III.—Practical Test.

Note.—Each of the written papers shall be of three hours' duration and carry 100 marks. The Practical Test shall be of four hours' duration and carry 100 marks out of which 20 marks shall be reserved for the Laboratory and Field Records of the candidate.

Zoology

Paper I.—Invertebrata.

Paper II—Vertebrata

Paper III—Practical Test.

Note.—Each of the written papers shall be of three hours' duration and carry 100 marks. The Practical Test shall be of four hours' duration and carry 100 marks out of which 20 marks shall be reserved for the Laboratory and Field Records of the candidate.

2. A candidate who fails to pass the Qualifying Test or Tests at the end of the first or the second academic year, as the case may be, may appear again at any subsequent examination.

A candidate for the B.Sc.(Pass) Degree who attains the Pass standard in his Three Science Subjects of Group 'B' but fails to attain the necessary standard in either, or both, of his Qualifying subjects shall have to appear in the required Qualifying Test or Tests only and if successful, shall be declared to have passed the B.Sc. (Pass) Examination but shall not be eligible for the award of the B.Sc. Degree with Distinction.

3. English shall be the medium of examination in all subjects except in Modern Indian Languages in which the language concerned shall be the medium of examination.

B.Sc. (Hons.)

1. Subjects of Honours Examinations

1. Physics.
2. Chemistry.
3. Botany.
4. Zoology.

2. The Honours Examination for the Degree of Bachelor of Science shall include :—

- (1) A Qualifying Test in English at the end of the first academic year—One Paper.
- (2) A Qualifying Test in History of Science and Scientific Method at the end of the second academic year—One Paper.
- (3) An Examination in Two Subsidiary subjects at the end of the second academic year.
- (4) An examination in the Main Subject at the end of the third academic year.

3. *Qualifying Tests*—

A candidate who fails to pass the Qualifying Test or Tests at the end of the first or the second academic year, as the case be, may appear again at any subsequent examination.

4. *Examination in Subsidiary Subjects*—

(a) Every candidate must offer two Subsidiary subjects (which shall be other than the one offered as the Main Subject), taken from the following :—

1. Mathematics.
2. Physics.
3. Chemistry.
4. Botany.
5. Zoology.

Note.—The combination of options shall be subject to the approval of the Admission Committee.

(b) A candidate who does not pass the examination in the Subsidiary subjects at the end of the second academic year may appear again at any subsequent examination.

The examination in the Subsidiary subjects shall consist of the following papers :—

Physics—

- Paper I—Properties of Matter, Heat and Light.
Paper II—Sound, Electricity and Magnetism.
Paper III—Practical Test.

Note—Each of the written papers shall be of three hours' duration and carry 100 marks. The Practical Test shall be of five hours' duration and carry 100 marks out of which 20 marks shall be reserved for the Laboratory Records of the candidate.

Chemistry—

- Paper I—Inorganic and Physical.
Paper II—Organic and Physical.
Paper III—Practical Test.

Note.—Each of the written papers shall be of three hours' duration and carry 100 marks. The Practical Test shall be spread over two days each of four hours' duration. The Practical Test shall carry a total of 100 marks

out of which 20 marks shall be reserved for the Laboratory Records of the candidate.

Botany—

Paper I—Morphology and life history of Cryptogams and Phanerogams.

Paper II—Taxonomy, Physiology, Ecology and General Biology.

Paper III—Practical Test.

Note.—Each of the written papers shall be of three hours' duration and carry 100 marks. The Practical Test shall be of four hours' duration and carry 100 marks out of which 20 marks shall be reserved for the Laboratory and Field Records of the candidate.

Zoology—

Paper I—Invertebrata.

Paper II—Chordata.

Paper III—Practical Test.

Note.—Each of the written papers shall be of three hours' duration and carry 100 marks. The Practical Test shall be of four hours' duration and carry 100 marks out of which 20 marks shall be reserved for the Laboratory and Field Records of the candidate.

Mathematics—

Paper I—Algebra, Trigonometry, Analytical Geometry of two Dimensions.

Paper II—Differential Calculus—Integral Calculus, Differential Equations.

Paper III—Statics and Dynamics, and Hydrostatics.

Note.—Each of the written papers shall be of three hours' duration and carry 100 marks.

5. The Examination in the Main Subject shall consist of the following papers :—

Main Subject: *Physics—*

Paper I—Mathematics relevant to Physics.

Paper II—Mathematics relevant to Physics.

Paper III—General Properties of Matter and Sound.

Paper IV—Heat and Thermodynamics.

Paper V—Optics.

Paper VI—Electricity and Magnetism.

Paper VII—Atomic Structure.

Practical Test—

Note.—Each of the written papers shall be of three hours' duration and shall carry 100 marks. Practical Test shall consist of two papers each of five hours' duration. The Practical Test shall carry a total of 300 marks of which 75 marks shall be reserved for the Laboratory Records of the candidate.

Main Subject: *Chemistry—*

Paper I—Organic Chemistry A

Paper II—Organic Chemistry B

Paper III—Physical Chemistry A

Paper IV—Physical Chemistry B

Paper V—Inorganic Chemistry A

Paper VI—Inorganic Chemistry B

Practical Test—

Note.—Each of the written papers shall be of three hours' duration and shall carry 100 marks. The Practical Test shall consist of three papers each of five hours' duration. The Practical Test shall carry a total of 300 marks out of which 75 marks shall be reserved for the Laboratory Records of the candidate.

Main Subject: *Botany—*

Paper I—Bacteria, Algae, Fungi, Lichens and Plant Pathology.

Paper II—Bryophytes, Pteridophytes and Gymnosperms.

Paper III—Angiosperms.

Paper IV—Physiology, Ecology and Plant Geography.

Paper V—Cytology, Genetics, Plant Breeding and Evolution.

Paper VI—Economic Botany, History of Botany.

Practical Test—

Note.—Each of the written papers shall be of three hours' duration and shall carry 100 marks. The Practical Test shall consist of three papers each of five hours' duration. The Practical Test shall carry a total of 400 marks out of which 100 marks shall be reserved for the Laboratory and Field Records of the candidate.

Main Subject: *Zoology*—

Paper I—General Biology.

Paper II—Non-Chordate (excluding insect).

Paper III—Entomology.

Paper IV—Chordata (excluding Pisces).

Paper V—Pisces: Fishes and Fishery.

Paper VI—Cyto-genetics.

Practical Test—

Note.—Each of the written papers shall be of three hours' duration and shall carry 100 marks. The Practical Test shall consist of three papers each of five hours' duration. The Practical Test shall carry a total of 400 marks out of which 100 marks shall be reserved for the Laboratory and Field Records of the candidate.

Qualifying Marks and Classification of Results

(a) The minimum number of marks required to pass the Qualifying Test and Examination in the Subsidiary Subject is 33 per cent. In a Subsidiary subject for which Laboratory work is prescribed this percentage is required in the aggregate of the written papers and the aggregate of the practical papers separately.

(b) In order to pass in the Main Subject a candidate must obtain not less than 40 per cent marks in the aggregate of the written papers and in the aggregate of the practical papers separately.

(c) Candidates who pass the examination for the Bachelor of Science Honours degree are classified in the three divisions:—

(i) Candidates securing less than 50 per cent of the total number of marks in the Main Subject are placed in the third division;

(ii) Candidates securing 50 per cent and more but less than 60 per cent marks in the main Subject are placed in the second division;

(iii) Candidates who secure 60 per cent marks or more in the Main Subject are placed in the first division.

A candidate who has failed to attain the Honours standard but has passed the Qualifying Test and the examination in the Subsidiary Subject and has obtained not less than 33 per

cent of the total number of marks in the Main Subject is awarded a Pass Degree.

(d) A candidate for an Honours Degree who attains the Honours standard in his Main Subject but fails to attain the necessary standard in either his Subsidiary subjects or Qualifying Tests or both, may be allowed to present himself for a re-examination in those subjects at the Compartmental Examination and if he fails to pass or fails to present himself at the Compartmental Examination, then at the next Annual Examination and if successful shall be given an Honours Degree but without class provided that in the case of subjects including practicals, the candidate may be required to do additional practical work.

(e) A student who has taken a Pass Degree and has been admitted to an Honours Course shall not be required to take the Qualifying Test in English and the Examination in such of the Subsidiary subjects which he had passed at the B.Sc. Examination but shall have to appear in the paper on the History of Science and Scientific Method provided he has not passed this at the B.Sc. (Pass) Examination. He will be awarded the B.Sc. (Honours) degree on his passing the Examination in the Main Subject and on his qualifying in the paper on History of Science and Scientific Method and such of the Subsidiary subjects which he had not offered at the B.Sc. Examination.

B.Sc. Hons. Course in Nursing

The Course extends over a period of four academic years. The qualifications required for admission to the course are the same as for the other B.Sc. Hons. courses of the University.

The course includes the following subjects :

- (a) Main Subject—Nursing.
- (b) One Subsidiary Subject (Elementary Science) two written papers and Practical Test.
- (c) One Qualifying Subject—English and

Any one of the following qualifying subjects :

- (i) History of Science and Scientific Method.
- (ii) World History.
- (iii) Modern Indian History.
- (iv) Modern Indian Language.

Main Subject: There shall be nine written papers and three practical tests.

Paper	I—Physiology and Anatomy	100
Paper	II—Elementary Nursing	100
Paper	III—Preventive Medicine	100
Paper	IV—Psychology	100
Paper	V—Medical Nursing including communicable diseases, Tuberculosis, materia medica and diet in disease	100
Paper	VI—Surgical Nursing including orthopaedics Gynaecology, eye, ear, nose and throat	100
Paper	VII—Paediatric Nursing including child development and child psychology	100
Paper	VIII—Public Health Nursing including mental Hygiene	100
Paper	IX—Midwifery	100
<i>Practical Tests—</i>		
Paper	I—Nursing Elementary	100
Paper	II—Nursing advanced	100
Paper	III—Midwifery	100
		<hr/>
		1,200

Note.—Each of the written papers shall be of three hours' duration. In each practical test, 50 per cent of the marks shall be reserved for the practical class records and the ward report records.

Examination in the Main Subject:

(a) The examination in the Main subject shall be divided into three parts called Part I, Part II and Part III, respectively. Part I examination shall consist of Papers I and II and Practical Test I.

Part II examination shall consist of Papers III to VII (five papers) and Practical Test II; and

Part III shall consist of Papers VIII and IX, and Practical Test III.

B.Sc. Hons. in Agriculture

The course extends over three years.

A student seeking admission to the course of study and examination for the degree of Bachelor of Science Honours in Agriculture shall satisfy the following conditions :—

- (a) He must have passed—
 - (i) the Higher Secondary Examination of the Board of Higher Secondary Education, Delhi in Group 'B' with the following subjects :—
 - (a) Physics.
 - (b) Chemistry.
 - (c) One other optional subject in the Group or an examination recognised as equivalent thereto.
 - or*
 - (ii) the Qualifying Examination of the University of Delhi with Group 'b' with—
 - 1. Physics, 2. Chemistry, and 3. Biology or Mathematics.
 - or*
 - (iii) Inter. Science Examination of a recognised University.
 - or*
 - (iv) the Admission Examination of Delhi University with
 - 1. Physics, 2. Chemistry, and 3. Biology or Maths.

Note—Senior Cambridge Examination will be treated at Par with the Higher Secondary Examination of Delhi State.

The minimum number of marks required to pass the I year Examination is 33 per cent in each subject and 40 per cent in the aggregate. The minimum number of marks required to pass the II and III year Examination is 40 per cent in each subject and 45 per cent in the aggregate.

Master of Arts

1. (A) Every candidate seeking admission to the Examination for the Degree of Master of Arts shall satisfy the following conditions :—

- (i) He must have passed an Honours Examination of the University of Delhi or of any other recognised University.
- (ii) He must have passed the B.A. or B.Sc. Examination of the University of Delhi or an examination recognised as equivalent thereto securing 45 per cent

marks in the aggregate or 50 per cent marks in the subject offered for the course.

- (iii) He must have pursued a regular course of study as hereinafter prescribed for not less than two academic years.

No candidate is considered to have pursued a regular course of study unless he is certified by the Dean of the Faculty and the Principal.

The M.A. course consists in each case of one subject of study from among the following :—

- (1) Languages (English, Arabic, Persian, Sanskrit, Urdu, Hindi or Punjabi.)
- (2) History.
- (3) Economics.
- (4) Mathematics.
- (5) Philosophy.
- (6) Social Work.
- (7) Political Science.

There shall be eight papers in each subject for the M.A. Examination.

Each paper is of three hours' duration and carries one hundred marks.

- (a) The minimum numbers of marks required to pass the Examination is 40 per cent in the aggregate, but if a candidate gets less than 25 per cent in any one paper, the marks obtained in that paper shall not be counted towards the aggregate.

- (b) Candidates who gain sixty per cent or more of the aggregate marks are placed in the first class; those who gain not less than fifty per cent in the second class, and all below in the third class;

A candidate may be permitted by the Committee of Courses and Studies concerned to offer a dissertation in lieu of a paper as prescribed by Regulations and under the following conditions :—

- (i) He must have obtained 55 per cent marks in the B.A. (Hons.) Examination, and
- (ii) The subject of his dissertation should be approved by the Committee of Courses and Studies.

M.Com.

Qualifications for admission—B.A. (Hons.) in Commerce or B.Com. Examination. The Course runs for two years. The following is the schedule of papers prescribed for the M.(Com.) Examination :—

- Paper I—Applied Economics.
 Paper II—Modern Finance.
 Paper III—Business Administration.
 Paper IV—Statistics or Advanced Statistics.
 (Candidates who had offered Optional Group D (Statistics) at their B.Com. Examination shall have to offer Advanced Statistics for Paper IV, other will offer Statistics for this paper.)
 Paper V—Company Law.
 Paper VI—Labour Legislation.
 Paper VII—Taxation.
 Paper VIII—Advanced Accounting, Problems or Insurance.

A candidate, in order to qualify for the M.Com. degree shall in addition to passing in the written examination, undergo practical training to the satisfaction of the Head of the Department in an industrial or commercial establishment approved by the University for a period not less than three consecutive months either during the long vacation intervening the two sessions or after taking the M.Com. Examination; provided that, in the latter case, such training is ordinarily taken within a period not exceeding one year from the commencement of the M.Com. Examination.

Master of Science

A student seeking admission to the M.Sc. course must have passed the B.Sc. Honours or B.A. Honours Examination of the Delhi University or the degree examination of any other Indian University incorporated by any law for the time being in force or an Examination recognized as equivalent thereto; and the subject offered for the M.Sc. course must have been the main subject at the Honours Examination taken by him.

Note.—(I) (a) A candidate who has passed the three years Honours Course Examination in Mathematics (as his main subject) with Physics as the subsidiary subject will be eligible for admission to the M.Sc. course in Physics.

- (b) A candidate who has passed the three-year Honours course Examination in Physics (as his main subject) with Chemistry as the subsidiary subject will be eligible for admission to the M.Sc. Course in Chemistry.
 - (c) A candidate who has passed the B.Sc. (Honours) in Agriculture of this University will be eligible for admission to the M.Sc. course in Botany.
- (II) (a) A student seeking admission to the M.Sc. course in Anthropology must have passed the B.A. (Honours) Examination or the B.Sc. (Honours) Examination in one of the following Main Subjects:—

- Zoology, Anthropology, Physiology, Geology, Physics, Chemistry, Mathematics, Geography, Psychology, Economics, History or the M.A. or the M.Sc. Examination in one of the above subjects of the Delhi University or of any other University incorporated by any law for the time being in force or any examination recognised as equivalent thereto ;
- (b) A candidate who has passed the B.Sc.(Pass) or B.A. (Pass) Examination in Zoology, Anthropology, Physiology, Geology, Physics, Chemistry, Mathematics, Geography, Psychology, Economics, History as one of the subjects in his B.A. or B.Sc. Examination of a recognised University or an examination recognised as equivalent thereto may in special cases be admitted to the M.Sc. course by the Admission Committee.

The M.Sc. Examination consists of two parts:—

- (a) Previous Examination, and (b) Final Examination.

Every candidate seeking admission to the M.Sc. Previous Examination must have pursued a regular course of study, as hereinafter prescribed, for not less than one academic year.

Every candidate seeking admission to the Final Examination for the degree of Master of Science must satisfy the following conditions:—

- (a) He must have passed the M.Sc. Previous Examination of the University in the Subject offered for the Final Examination ;
- (b) He must, after passing the Examination, have pursued a regular course of study, as hereinafter prescribed for not less than one academic year.

The M.Sc. Previous Examination consists of the following papers :—

Physics, Paper I Mechanics and Statistical thermodynamics 100 marks, Paper II Relativity Theory and Quantum, Mechanics 100 marks, Paper III Electromagnetic Theory, X-Rays, and Atomic Structure 100 marks, Papers IV and V Practical Test 200 marks.

Chemistry.—Paper I Inorganic and General Chemistry 100 marks, Paper II Physical Chemistry 100 marks, Paper III Organic Chemistry 100 marks, Paper IV and V Practical in Inorganic, Physical and Organic Chemistry 200 marks.

Anthropology.—Paper I Physical Anthropology, Paper II Ethnology, Paper III Pre-historic Archaeology and Technology, Paper IV Social Anthropology and Primitive Religion, Paper V Practical Test.

Botany.—Paper I—Bacteria, Algae, Fungi, Lichens and Plant Pathology. Paper II—Bryophyta, Pteridophyta and Gymnosperms. Paper III—Morphology, Embryology, Anatomy, and Taxonomy of Angiosperms. Paper IV & V practical Examination.

Zoology.—Invertebrata, (Protozoa, Helminths, Annelida, etc.), 75 marks. Paper II—Invertebrata (Arthropoda, Mollusca, Echinodermata, etc.) 75 marks. Paper III—Principles of general Biology and cytogenetics, 75 marks. Paper IV—Essay. Paper V and VI Practical Examination 200 marks.

The M.Sc. Final Examination consists of the following papers :—

Physics.—The examination in Physics is in two alternative Groups, Group A having a theoretical bias and Group B an experimental bias, Group A—Paper I Quantum Mechanics and Electrodynamics 100 marks, Paper II Nuclear Physics and Cosmic Rays 100 marks, Paper III Electron Theory of Metals and Elementary Electronics 100 marks, Paper IV and V Practical Test 200 marks. Group B—Paper I Wireless or Spectroscopy, Paper II—same as in Group A, Paper III—same as in Group A, Paper IV and V Practical Test.

Chemistry.—Paper I—Inorganic and General Chemistry 75 marks Paper II—Physical Chemistry, 75 marks, Paper III—

Organic Chemistry, 75 marks, Paper IV—Special 75 marks, Paper V—Practical 100 marks, Paper VI—Practical or Thesis 100 marks.

Anthropology.—Paper I—Ethnology of India, Paper II—Essay, Paper III—(a) Advance Physical Anthropology Group A, (b) Advance Social Anthropology Group B, Paper IV—Practical, Paper V—Practical Physics Group A, Culture Group B.

Botany.—Paper I—Physiology and Ecology. Paper II—Cytology, Genetics and Evolution, Economic Botany. Paper III—Thesis or special paper, Paper IV and V Practical Examination.

Zoology—Paper I.—Chordata (Protochorda, Pisces, Amphibia, etc.), 75 marks. Part II—Chordata (Reptiles, Birds and mammals), 75 marks. Paper III and Paper IV—Two papers on any one of the following special Groups—75 marks. (A) Parasitology (B) Entomology (C) Ichthyology.

Paper V and VI—Practical Examination 200 marks.

The minimum number of marks required to pass the M.Sc. Previous or Final Examination is 40 per cent in the aggregate of the written papers and in the aggregate of the practical papers separately.

Candidates who gain 60 per cent or more of the aggregate marks in the total of their Previous and Final Examinations are placed in the first class; those who gain not less than 50 per cent in the second class; and all below in the third class.

Bachelor of Laws

The course for the LL.B. degree extends over two academic years and there is a Previous Examination held at the end of the first year and a Final Examination at the end of the second year.

The minimum qualification required for admission to the course for the LL.B. degree which is of two years' duration, is a Bachelor's degree in Arts, Science or Commerce of the University of Delhi or a degree of any other University which is recognised as equivalent thereto.

Persons desirous of practising within the jurisdiction of the

Punjab High Court have to undergo a further course of study for one year after passing the LL.B. examination and pass the "Certificate of Proficiency" Examination. Law Graduates of the University of Delhi are eligible for enrolment as pleaders of the Allahabad High Court if they have passed an examination in the 'Law of Land Tenures, Rent and Revenue in the United Provinces conducted by the University.

The following are the subjects for the Law examinations, namely :—(a) PREVIOUS EXAMINATION IN LAW, (i) Roman Law or Legal History of British India, (ii) Law of Torts, (iii) Constitutional Law, English and Indian, (iv) Law of Contracts, (v) Hindu Law, (vi) Mohammedan Law, (vii) Equity with special reference to the Law of Trusts and Specific Relief, (b) FINAL EXAMINATION IN LAW, (i) Mercantile Law, (ii) Criminal Law and Procedure, (iii) Jurisprudence, (iv) Civil Procedure, (v) Law of Evidence, (vi) Transfer of Property and Easements, (vii) Public International Law or Private International Law, or Law of Land Revenue, Tenures, and Rent in the United Provinces, or Punjab Land Laws and Customary Law or with the permission of the Dean, the Law of Land Tenures, Rent and Revenue of any other Province in the Indian Dominion.

In order to pass, a candidate must obtain at least 40 per cent of the marks in each paper and 50 per cent of the marks in the aggregate. Those of the successful candidates who obtain 65 per cent of the marks or more are declared to have passed the examination in the first division and all others in the second division.

A student, who, having attended the prescribed number of lectures, tutorials and sittings of moot court, does not appear at an examination for sufficient cause, or having appeared at the examination is declared in successful, may be allowed to appear at any of the next two annual examinations without attending a fresh course of lectures, tutorials, and sittings of moot court if he is placed by the Registrar on the Register of ex-students under the Ordinance relating to the admission of ex-students.

Bachelor of Civil Laws (B.C.L.)

No candidate is eligible for admission to the Course for the Degree unless he has passed the Examination for an Honours or Master's Degree in Arts, Science or Commerce. The Course extends over a period of three academic years and there is an

examination at the end of each academic year. No candidate is allowed to proceed to the next examination unless he has passed the previous one. *There is provision for transfer to the LL.B. course from the B.C.L. Course.*

In order to qualify for the degree, a candidate must obtain at least 40 per cent of the marks in each paper and at least 50 per cent of the marks in the aggregate in the examination held at the end of each year's course. A candidate who obtains not less than 65 per cent of marks on the combined results of the B.C.L. Part I, Part II and Final Examinations shall be declared to have passed in the I Division.

LL.M. (Master of Laws)

1. No person shall be admitted to a course of study for the Degree of Master of Laws in the University unless he is qualified for the Degree of Bachelor of Laws of the University of Delhi or of a University whose Degree of Bachelor of Laws is recognised as equivalent to the Degree of Bachelor of Laws of the University of Delhi or is qualified for the Degree of Bachelor of Civil Law of the University of Delhi.

2. A candidate for the LL.M. Examination must have pursued an approved course of study in Delhi under the guidance of the staff of the Faculty of Law of the University of Delhi for not less than two academic years in case he is an LL.B., or for not less than one academic year in case he is a B.C.L. of the Delhi University.

Approved course of study under the guidance of the staff of the Faculty of Law shall mean attendance at Lectures, Seminars and submission of written papers as arranged by the Faculty of Law during the academic year.

A candidate shall be deemed to have pursued an approved course of study, only if—

- (1) he has attended at least two-thirds of the lectures delivered to the LL.M. Part I Class ; and
- (2) he has attended at least TEN of the Seminars conducted for the LL.M. Part II Class.

3. An LL.B. intending to proceed for the LL.M. Degree must pass in Part I as well as in Part II of the LL.M. Examination as hereinafter appearing ; he must have passed in part I Examination before he can appear in Part II Examination.

A B.C.L. intending to proceed for the LL.M. Degree will have to appear and pass in Part II only of the LL.M. Examination.

4. The LL.M Examination shall be conducted in two parts.

Part I Examination will comprise the following papers :

- | | |
|--|-----------|
| 1. Jurisprudence (Analytical) | One paper |
| 2. Jurisprudence (Historical) | One paper |
| 3. English Legal History | One paper |
| 4. Indian Legal History | One paper |
| 5. Constitutional Law and History of England, including Commonwealth Relations | One paper |
| 6. Constitutional Law and History of India | One paper |

Part II Examination will consist of four papers, namely, two papers in each of two chosen subjects out of the following list, and a dissertation on a topic approved by the Faculty of Law.

“ For special provision for candidates who have obtained the B.C.L. Degree under old ordinance *vide* transitory provisions.

- | | |
|--|-----------|
| (a) <i>Law of Torts—</i> | |
| 1. General Principles | One paper |
| 2. Select Topics | One paper |
| (b) <i>Law of Contracts—</i> | |
| 1. General Principles | One paper |
| 2. Select Topics | One paper |
| (c) <i>Mercantile Law—</i> | |
| 1. Company Law and Partnership and Sales of Goods | One paper |
| 2. Negotiable Instruments, Banking and Carriage by Land, Sea And Air | One paper |
| (d) <i>Hindu Law—</i> | |
| 1. History, Sources, and General Principles | One paper |
| 2. Select Topics | One paper |
| (e) <i>Mohammadan Law—</i> | |
| 1. History, Sources and General Principles | One paper |
| 2. Select Topics | One paper |

(f) *Public International Law*—

1. Nature, History, Sources, International Persons, Objects of Law of Nations, International Transactions, Ambassadors and other Diplomatic Representatives and their privileges, International Organisation One paper
2. Settlement of differences, including Conciliation, Arbitration etc., Retortion, Reprisals, Blockade, Intervention, etc. Neutrality and War, Visitation, Capture, Search, etc. One paper

(g) *Private International Law*—

1. History, Nature of subject, General Principles, Jurisdiction, Obligations (Capacity, Contract and Torts) One paper
2. Domicile, Family Law (including Marriage, Divorce, Legitimacy), Property, and Foreign Judgments and Procedure One paper

(h) *Jurisprudence*—

1. Philosophical and Sociological One paper
2. Theory of Legislation and Interpretation of Statutes One paper

(i) *Roman Law*—

1. History and General Principles One paper
2. Select Topics One paper

(j) *Constitutional Law*—

1. Federal Constitutions One paper
2. Select Constitutions (Other than the Federal) One paper

(k) *Crimes and Criminology*—

1. Law of Crimes One paper
2. Criminology One paper

(l) *Transfer of Property and Equity*—

1. Transfer of Property (excluding Mortgages) One paper
2. History of Equity, General Principles, Trusts, Specific Performance, In-

junction, Mistakes, Misrepresentation and Fraud (Actual and Constructive) and Mortgages

One paper

- Note*.—1. Candidates will have to obtain the Dean's sanction for the choice of subjects.
2. The Select topics for the various papers will be prescribed by the Faculty of Law from time to time.

5. (i) The dissertation on an approved topic as aforesaid must be submitted on or before the 1st August following the LL.M. Part II Examination: with the permission of the Dean, however, the candidate may submit it up to 1st of October following.

(ii) The candidate will submit his dissertation only when he has received intimation from the Registrar of his eligibility to do so.

(iii) A dissertation which fails to obtain the requisite percentage of pass marks may, with the previous permission of the teacher under whose guidance it was written, be suitably revised and resubmitted; otherwise a fresh dissertation on a fresh topic, approved by the Faculty of Law, should be submitted.

(iv) A candidate for the LL.M. Examination may be required to submit for a *viva voce* examination on the subject of his dissertation, if the examiner of the dissertation so likes. Marks for the dissertation will be awarded after such *viva voce* examination, if any.

6. (i) Each of the papers to be set for the LL.M. Part I or LL.M. Part II Examination shall be of three hours' duration and carry the maximum of 100 marks.

(ii) The dissertation shall carry the maximum of 200 marks.

Certificate of Proficiency Examination (Punjab)

1. The course of study for the Examination extends over one academic year.

2. The following are the subjects for the examination, namely,

- (i) Punjab Land Laws and Customary Law.
- (ii) Minor Acts (Registration Act, Guardian and Wards Act, Majority Act, Stamp Act, Court-Fees Act and Suits Valuation Act.)

- (iii) Pleading and Conveyancing.
- (iv) Law of Arbitration and Insolvency.
- (v) Law of Limitation and Prescription.

3. A course of Lectures on Legal Ethics is provided of which at least 75 per cent have to be attended by every student. No examination by the University is held in this subject but attendance at the course of lectures is a condition precedent to the admission to the examination.

Doctorate of Laws (LL.D.)

1. No candidate shall be eligible to obtain the Degree of Doctor of Laws unless he has obtained the Degree of Master of Laws of a recognised University or an equivalent degree of the University of Oxford or of Cambridge and is of five years' standing from the date of obtaining such degree.

2. Every candidate shall make an application for permission to submit a thesis, which application shall be dealt with by the Academic Council after considering the recommendation of the Committee of Studies and Faculty of Law.

3. Every candidate from another University whose application is granted shall carry on his studies or researches in Law for a period of at least two years under the general direction of a person or persons nominated for this purpose by the Committee of Courses and Studies and the Faculty of Law.

4. (a) Every candidate shall state in his application the special subjects within the purview of the Ordinance for the Degree of Master of Laws upon a special knowledge of which he rests his application for the Doctorate, and shall with the application transmit twelve printed copies of the thesis that he has composed upon some branch of Law or of the history or philosophy of Law.

(b) Every candidate shall indicate generally in his Preface to his thesis and specially in notes, the sources from which his information is taken, the extent to which he has availed himself of the work of others, and the portions of the thesis which he claims as his original work.

(c) He shall further state whether his research has been conducted independently under advice or in co-operation with

others, and in what respects his investigations appear to him to advance the study of Law.

5. Every candidate may also forward with his application three printed copies of any original contribution or contributions to the advancement of the science or study of Law whether published conjointly or independently and upon which he replies in support of his candidature.

6. No application shall be entertained unless three members of the Faculty of Law or two Doctors of Laws shall have testified that since taking a degree in Law the candidate has engaged himself in legal work either as practitioner or otherwise with repute for ten years, and that in habit, character, and eminence he is a fit and proper person to receive the Degree of Doctor of Laws.

7. Every candidate shall forward with his application a fee of Rs. 500. No candidate who fails to pass the tests or fails to present his thesis shall be entitled to claim a refund of his fee.

8. The thesis and the original contribution, if any, mentioned in this Ordinance, shall be referred to a Board of at least three examiners appointed in the usual manner, who shall examine the thesis, who may examine the candidate *viva voce* if they so desire, and who shall declare whether the candidate's work is of sufficient merit to deserve the Degree of Doctor of Laws.

9. A candidate who has obtained a first class at the examination for the Degree of Bachelor of Laws and Master of Laws may, at the discretion of the Committee of Courses and Studies, be permitted to qualify himself for the Doctorate of Laws though he be not of the requisite standing.

Doctorate of Philosophy (Ph.D.)

The degree of Doctor of Philosophy may be granted in any Faculty of the University save in the Faculty of Law. Subject to the general guidance of the Academic Council post-graduate research studies in the University is organised by two Boards of Research Studies—for the Humanities and for Sciences respectively. A candidate for admission to the Course for the degree of Doctor of Philosophy must have obtained a recognised Master's Degree in the subject in which the candidate wishes to pursue a course of research or in a subject allied thereto. Every application for admission is to be recommended by the Head of the Department concerned who will also recommend the

name of the Supervisor to guide the applicant. Candidates may be enrolled at the beginning of any term in the academic year and every candidate shall pursue as a student of the University a course of research for not less than 6 academic terms. Every candidate should pursue his research in Delhi but may be permitted by the Board, on the recommendation of the Supervisor to be absent from Delhi for ordinarily not more than three academic terms on the ground that it is in the interest of his research that he should work elsewhere. No candidate shall undertake any employment during the period of his study without the permission of the Board. Candidates are not permitted to submit their theses for the degree unless their supervisors are satisfied that the theses presented are worthy of consideration for the award of the Ph.D. Degree. The reports of the examiners of a thesis are placed before a Committee. It is the function of the Committee after considering the reports of the examiners to make a recommendation to the Academic Council.

Bachelor of Education (B.Ed.)

The Course extends over a period of one academic year after graduation. The Course of study and examination comprise the following:—

Part A (Theory).—Paper I—Principles of Education. Paper II—Psychology and Hygiene of the School child. Paper III—History of Education with special reference to Education in India; Paper IV—Methods of Teaching:—Selected Scheme Subjects (Two to be taken) Paper V—Any one of the following:—(a) Social Education (b) Educational Psychology (c) Physical Education (d) School Administration (e) Early Childhood Education (f) History of Education in India (g) Audio Visual Education.

Part B (Practical Training in Teaching)

The minimum number of marks required to pass the Examination is 35 per cent in each of the papers in Part A and 45 per cent in Part B and 40 per cent in the aggregate. Those who obtain 60 per cent of the aggregate marks or more in Theory and Practical combined are declared to have passed with Distinction.

Any candidate who has obtained not less than 40 per cent of the aggregate marks, but has failed in one subject only under Part A or Part B, of the examination, obtaining not less than twenty-five per cent in that subject under Part A or Part B

as the case may be, is admitted to a supplementary examination in that subject under Part A or in Part B in that year.

Master of Education (M.Ed.)

Minimum Qualifications for admission to the course are B.Ed. Degree with at least three years' teaching experience as whole-time teacher in any recognised educational Institution. Qualification regarding teaching experience may be waived in the case of those candidates who have obtained a I Class or Distinction in the B.Ed. Examination or the preceding degree examination or who have had adequate research experience.

The Course extends over one academic year. The Examination consists of five papers, *viz.* Paper I—Philosophy of Education, Paper II—Advanced Educational Psychology, Paper III—Educational Administration or Principles of Curriculum Construction or Mental Hygiene and Child Guidance or teacher's training. Paper IV—Experimental Education or Educational and Vocational Guidance or Comparative Education or History of Education. Paper V—Methodology of Educational Research.

A candidate must obtain 50 per cent of the aggregate marks to qualify for a Pass and 65 per cent to secure Distinction.

Diploma and Master's Degree Courses in Library Science

1. There shall be a course in Library Science leading to the Diploma in Library Science and the Degree of Master of Library Science.

2. The examination for the Diploma in Library Science shall be taken by (a) the candidates who have completed the Diploma course, and (b) the candidates who have completed the first year of the Degree course, and shall consist of:—

	Marks
(1) Library Classification (Theory)	(3 hours) 100
(2) Library Classification (Practical)	(3 hours) 100
(3) Library Catalogue (Theory)	(3 hours) 100
(4) Library Catalogue (Practical)	(3 hours) 100

- | | | |
|--|-----------|-----|
| (5) Bibliography, Book Selection and Reference Service | (3 hours) | 100 |
| (6) Library Organization | (3 hours) | 100 |
| (7) Library Administration | (3 hours) | 100 |

3. A candidate who secures not less than 50 per cent of the marks in the Diploma Examination of the University of Delhi shall be eligible for admission to the second year of the course for the Degree of Master of Library Science.

4. The examination held at the end of the second year of the course for the Degree of Master of Library Science shall consist of:—

- | | | |
|--|-----------|-----|
| (1) Field of Knowledge and Methods of Investigation | (3 hours) | 100 |
| (2) Advanced Library Classification (Theory) | (3 hours) | 100 |
| (3) Advanced Library Catalogue (Theory) | (3 hours) | 100 |
| (4) Advanced Library Classification and Catalogue (Practical) | (6 hours) | 200 |
| (5) Advanced Library Organization | (3 hours) | 100 |
| (6) Academic Libraries, or Business Libraries or Archival Libraries | (3 hours) | 100 |
| (7) Records in bibliography or Abstracting, and reference service and Administration | (3 hours) | 100 |

Diploma and Certificate Courses in Russian

There is a two-year course for a Certificate of Proficiency in the Russian Language and a third year course for a Diploma in Russian Language and Literature.

Candidates for admission to the Certificate Course must have passed either the Intermediate Examination of an Indian University or the Higher Secondary Examination of the Board of Higher Secondary Education, Delhi, or an equivalent Examination. The Examination for the Certificate is written and oral. Written Paper I—Translation from Russian into English. Translation from English into Russian. Paper II—Composition. Oral—(a) Reading of unseen passages (b) Conversation.

Candidates for the Diploma Course (a) must have obtained the Certificate of Proficiency in Russian Language of the Delhi University (b) must have passed a Special Admission Examination in Russian conducted by the Head of Department of Russian (Distinction holders are exempted from the test). The Course runs for one academic year. The Examination in the Diploma Course consists of a written examination in two papers and a *viva voce* examination.

Certificate Courses in German, French and Italian

There is one-year course each for a certificate in German, French and Italian. Candidates for admission to these courses must have passed either the Intermediate examination of an Indian University or the Higher Secondary Examination of the Board of Higher Secondary Education, Delhi or an equivalent examination.

M.B., B.S. Examination

1. (i) Every candidate for admission to the M.B., B.S. Examination shall undergo a course of certified study extending over not less than five academic years between the date of commencement of the academic year of his study and the date of completion of the Final Examination provided not less than the last three years of the course shall have been spent in study and training which shall ordinarily be continuous, in the clinical group of subjects.

(ii) Every candidate, subsequent to passing the final examination, shall undergo a period of certified practical training for twelve months in recognised medical institutions in the form of rotatory interneeship under medical officers recognised by the University as teachers for the purpose. Such practical training shall include training for three months in public health work, part of which should be in the rural areas.

No candidate shall be qualified for admission to the Degree of M.B., B.S. until he has undergone the specified period of practical training.

II. There shall be three examinations:—

(i) First M.B., B.S. Examination to be held in April each year called the Annual Examination after a course of study for not less than two academic years.

(ii) Second M.B., B.S. Examination to be held in April each year, called the Annual Examination, after a course of study for not less than two academic years after passing the First M.B., B.S. Examination.

(iii) Final Examination to be held in April each year called the Annual Examination at the end of the fifth academic year.

The following papers are prescribed for each of the above Professional Examinations :—

First M.B., B.S. Examination

<i>Anatomy—</i>	Marks
One written paper of three hours	150
*Practical Examination	75
Oral	75
<i>Physiology—</i>	
One written paper of three hours	150
*Practical examination	75
Oral	75

Second M.B., B.S. Examination

<i>Pathology and Bacteriology—</i>	
One written paper of three hours	150
*Practical examination	100
Oral	50
<i>Pharmacology including Pharmaco-therapeutics—</i>	
One written paper of three hours	150
*Practical examination	75
Oral	75
<i>Forensic Medicine including toxicology—</i>	
One written paper of three hours	150
Oral examination	50

Final M.B., B.S. Examination

<i>Medicine including Paediatrics—</i>	
One written paper of three hours	150
*Clinical and Practical	150
Oral	100

* 10% of the total marks for the Practical and Oral/Clinical examination shall be reserved for the class work records of the candidate.

Surgery—

One written paper of three hours	150
*Clinical and Practical	150
Oral	100

Midwifery and Gynaecology—

One written paper of three hours	150
*Clinical and Practical	150
Oral	100

E. N. & T. and Ophthalmology—

One written paper of three hours	150
*Clinical and Practical	100
Oral	50

Social and Preventive Medicine—

One written paper of three hours	150
Oral	50

Admission to the Medical Course

No candidate shall be eligible for admission to a course of Study for the Medical Degree Course (M.B.,B.S.) unless :—

- (i) he has completed the age of 17 years before the 1st October of the year of his admission to the Course; and
- (ii) he has passed any of the following examinations :—
 - (a) Pre-Medical Examination of the University of Delhi;
 - (b) The Intermediate Examination in Arts or Science of an Indian University with Physics, Chemistry (including Organic Chemistry) and Biology as subjects provided that the examination included a practical test in each of these subjects ; or
 - (c) An examination of a Board or other Body recognised by the University as equivalent thereto.

* 10% of the total marks for the Practical and Oral/Clinical examination shall be reserved for the class work records of the candidate.

The marks required for passing the examination shall be those as given below:—

<i>Name of Examination.</i>	<i>Minimum marks required for passing the Examination</i>	<i>Classification of successful candidates I Div. II Div. or Distinction.</i>
M.B.,B.S. I, II and Final Examination.	In each subject, 50 per cent in written; 50 per cent in Practical and/or Oral together ; 50 per cent in Clinical (in Clinical subjects) ; and 50 per cent in Total.	75 per cent or more in the aggregate. 60 per cent or above. 80 per cent or more in a subject; Distinction in that subject. No candidate who does not pass in all subjects of the examination at one time shall be declared to have passed with Distinction in any subject.

Compartment

(1) Any candidate who has failed in one subject only in the First or Second M.B.,B.S. Examination, but has secured not less than 40 per cent in the aggregate of that subject and not less than 50 per cent in the aggregate of the whole examination, may be admitted to a Compartment Examination in that subject to be held in July and if he secures the requisite percentage of marks in that subject at that examination, shall be declared to have passed the First or Second M.B.,B.S. Examination, as the case may be. If he fails to pass in the Compartment Examination, he will be required to take the whole examination again after a further course of study for one academic year.

Provided that any candidate, who has failed in Forensic Medicine only in the Second M.B.,B.S. Examination, may be permitted to proceed to the Course of Study for the Final Examination and be permitted to take the examination in Forensic Medicine at the time of the Final M.B.,B.S. Examination and if he passes in that subject also in addition to the subjects for the Final M.B.,B.S. Examination, he shall be declared to have passed the Final M.B.,B.S. Examination.

(2) Any candidate for the Final M.B.,B.S. Examination who has failed to obtain the requisite percentage of marks to pass the examination in not more than two subjects only, obtaining not less than 40 per cent in the aggregate of marks in those subjects, and 50 per cent in the aggregate of the whole examination, may be admitted to a compartment Examination in those subjects only to be held in July and if successful, be declared to have passed the Final M.B.B.S. Examination.

Diploma in Tuberculous Diseases (D.T.D.)

Candidates seeking admission to the Diploma Course must be graduates in Medicine of recognised Universities, shown in Schedules I and II of the Indian Medical Council Act, who have been engaged in the practice of medicine for at least two years from the date of obtaining a qualification in Medicine, Surgery, and Midwifery or in hospital practice for one year. In special cases, Licentiates who hold or have held Commissions in the Indian Army Medical Corps may also be considered. Every candidate for admission to the Examination for the Diploma shall be required to produce certificate from the Officer-in-Charge of the course that he has pursued a special study of tuberculosis for a period of not less than nine months and attended to the course of instruction prescribed by the University in the institution recognised by the University for the purpose. The successful candidates are required to work, as interneers in a recognised institution for a further period of three months.

Diploma Courses in Hindi, Urdu and Panjabi

I. Every candidate seeking admission to the Examinations for the Diploma in Hindi, Urdu and Panjabi Language and Literature shall satisfy the following conditions :—

- (a) He must have passed the Higher Secondary Examination of the Board of Higher Secondary Education or the Qualifying Examination of the University or any other Examination of an Indian University equivalent thereto.
- (b) He must have pursued a regular course of study as hereinafter prescribed for two years after admission in any institution recognised by the University provided that the women candidates are allowed to appear for Examination privately through the Women's Delegacy.

II. No candidate shall be considered to have pursued a regular course of study unless he is certified by the Head of the Institution to have attended at least 66 per cent of the lectures delivered and to have otherwise pursued his studies to his satisfaction.

III. (a) The minimum number of marks required to pass the Examination shall be 43 per cent in each of the compulsory papers.

(b) A candidate obtaining more than 75 per cent of the total number of marks shall be declared to have passed the Examination with 'Distinction'.

A candidate who fails to pass the Examination may be admitted to the Examination again after a further period of not less than one academic year.

IV. The Examination for the Diploma shall consist of a written examination.

The written examination shall consist of six papers provided that the candidate for Hindi Examination shall be allowed the option of taking one additional paper in Sanskrit or Urdu, the candidate for Urdu, one additional paper in Persian or Hindi and the candidate for Panjabi, one additional paper in Hindi or Urdu.

The candidate will be allowed to offer in Examination as an additional paper only that alternative subject which he had not already offered for his Examination as specified above under clause 2 (a).

The marks of the additional paper shall not count towards aggregate. But the name of the language in which a candidate has qualified himself shall be mentioned in the certificate, if he obtains not less than 40 per cent in the optional paper.

V. The examination fee prescribed for admission to the Diploma Examination in any language is Rs. 25.

VI. The syllabus shall be as follows :—

Hindi

Paper I—Early Poetry (before Bharatendu)	100 Marks
Paper II—Later Poetry	100 Marks
Paper III—Prose and Drama	100 Marks

Paper IV—(a) Prosody, Rhetorics and Principles of Criticism	50 marks	} 100 Marks
(b) Bhasha Vijnana	50 marks	
Paper V—History of Hindi Literature		100 Marks
Paper VI—(a) Composition	70 marks	} 100 Marks
(b) Translation from English into Hindi	30 marks	

Additional Paper

Sanskrit

(i) Text	70 marks	} 100 Marks
(ii) Grammar	30 marks	

Note.—The Sanskrit paper will be of the standard not less than that of High School Examination of the Board of Higher Secondary Education, Delhi.

Or

Urdu

(i) Urdu Literature	70 marks	} 100 Marks
(ii) Outline of History of Urdu Literature	30 marks	

Note.—The Urdu Paper will be of the Standard of not less than that of High School examination of the Board of Hr. Sec. Education, Delhi.

Urdu

Paper I—Early Prose and Poetry		100 Marks
Paper II—Later Prose		100 Marks
Paper III—Later Poetry		100 Marks
Paper IV—(a) Linguistics	50 marks	} 100 Marks
(b) Prosody, Rhetorics and Principles of Literary Criticism	50 marks	
Paper V—History of Urdu Literature		100 Marks
Paper VI—(a) Composition	70 marks	} 100 Marks
(b) Translation from English into Urdu	30 marks	

*Additional Paper***Persian**

- | | | |
|-------------|----------|-------------|
| (a) Text | 70 marks | } 100 Marks |
| (b) Grammar | 30 marks | |

Note.—The Persian paper will be of the standard not less than that of High School Examination of the Board of Higher Secondary Education, Delhi.

Or

Hindi

- | | | |
|---|----------|-------------|
| (a) Hindi Literature | 70 marks | } 100 Marks |
| (b) Outline of History of Hindi Literature. | 30 marks | |

Note.—The Hindi paper will be of the standard not less than that of High School Examination of the Board of Higher Secondary Education, Delhi.

Panjabi

- | | | |
|---|----------|-------------|
| Paper I—Poetry (Early and Later) | | 100 Marks |
| Paper II—Drama | | 100 Marks |
| Paper III—Prose | | 100 Marks |
| Paper IV—(a) Linguistics | 50 marks | } 100 Marks |
| (b) Prosody, Rhetorics, and Principles of Literary Criticism. | | |
| Paper V—History of Panjabi Literature | 50 marks | |
| Paper VI—(a) Composition | 70 marks | } 100 Marks |
| (b) Translation from English into Panjabi | 30 marks | |

Additional paper in Hindi or Urdu
Note.—The Hindi or Urdu paper will be of the standard not less than that of High School Examination of the Board of Higher Secondary Education, Delhi.

Hindi

- | | | |
|-------------|----------|-------------|
| (a) Text | 70 marks | } 100 Marks |
| (b) Grammar | 30 marks | |

Or

Urdu

- | | | |
|---|----------|-------------|
| (a) Literature | 70 marks | } 100 Marks |
| (b) Outline of History of Urdu Literature | 30 marks | |

Examination Fees

	Rs.
Qualifying, Admission	15
Pre-Medical	30
B.A.	35
B.Sc.	40
B.A. (Hons.)	55
B.Sc. (Hons.)	55
B.Sc. (Hons.) Agriculture	55
B.Sc. (Hons.) Nursing	60
M.A. (Final)	60
M.Sc. (Previous)	60
M.Sc. (Final)	30
Dip. in Library Science	30
M.A. Library Science	30
LL.B. (Previous)	55
LL.B. (Final)	50
Certificate of Proficiency in Law	30
B.C.L. Part I	55
B.C.L. Part II	50
LL.M. I	50
LL.M. II... ..	55
B.Ed.	75
M.Ed.	15
Certificate of Proficiency in Russian	15
Diploma in Russian	15
Certificate Examination in French	15
German, and Italian	100
D.T.D.	40
M.B., B.S. 1st Exam.	20
M.B., B.S. 2nd Exam.	40
M.B., B.S. 3rd Exam.	60
M.B., B.S. Final	60

for whole.

Rs. 40

for any part.

Tuition Fees

Degree Classes	15
Post-graduate Classes	18

UNIVERSITY OF GAUHATI

Introductory

The University came into existence from the 1st January, 1948, and its constitution is governed by the Gauhati University Act 1947 (Assam Act XVI of 1947). It is an affiliating, teaching and residential University with jurisdiction over all the Schools and Colleges in the province of Assam which were formerly affiliated to the University of Calcutta. Under the Gauhati University Act, 1947, the Government of Assam shall contribute annually not less than five lakhs of Rupees to meet the recurring charges of the University.

The Constituent Bodies of the University are the Court, the Executive Council and the Academic Council.

The Court consists of *ex-officio*, elected and nominated members. The Court has the power of approving or rejecting the Draft Statutes placed before it by the Executive Council, of considering and cancelling Ordinances, and of passing resolutions on the Annual Report, the Annual Accounts and the Financial Estimates. The Chancellor is the *ex-officio* President of the Court.

The Executive Council consists of the Vice-Chancellor, the Director of Public Instruction, three Deans of the Faculties, two Principals, the Registrar, the Treasurer, one member of the Court, one member of the Academic Council, two persons nominated by the Chancellor and three other members. The Vice-Chancellor is the *ex-officio* Chairman of the Executive Council. The Executive Council is responsible for the administration of the University and the conduct of the University Examinations. It holds, controls and administers the property and funds of the University.

The Academic Council is the academic body of the University with powers to recommend the number, qualifications and emoluments of University teachers and promote research and higher academic teaching within the University.

Officers and Staff of the University

Chancellor :
The Governor of Assam.

Vice-Chancellor :

Mr. Krishna Kanta Handiqui, M.A. (Cal et Oxon).

Registrar :

Mr. Phanidhar Datta, M.A., B.L.

Treasurer :

Mr. Sailadhar Rajkhowa, B.A.

Deputy Registrar :

Mr. Chidananda Das, M.A., B.L.

Assistant Registrar :

Mr. Kailash Chandra Bhattacharya, M.A.

The Chancellor is the head and the Vice-Chancellor is the principal executive and academic officer of the University.

Deans of the Faculties

Arts—Dr. Banikanta Kakati, M.A., Ph.D.
Commerce—Prof D. C. Sabharwal, M.A., B.Com., A.C.I.S.
(Lond.)
Medicine—Dr. G. D. Kapur, M.Sc., M.B., F.R.C.S.
Science—Prof. V. D. Thawani, M.A. (Cantab.)
Agriculture—Dr. M. C. Das, M.Sc., Ph.D.
Law—*Vacant.*

The teaching work of the University is carried on in the Post-graduate, Law, Under-graduate and Teachers' Training Departments. Under-graduate classes other than I.Com. and B.Com. are held only in such subjects as are not taught in any of the affiliated Colleges. A Diploma course in Secretarial Practice is also provided. B.A. Honours classes in Assamese and Botany are held at the University. The Secretary of the University classes acts as the Administrative Officer.

Post-graduate Department

Four Professors, nine Readers and thirty-seven Lecturers have been appointed.

Mathematics and Statistics	...	<i>Professor and Head of the Department—</i> Prof. V. D. Thawani, M.A.(Cantab.)
Statistics	...	<i>Reader—</i> (Vacant).
History	...	<i>Readers—</i> Dr. A. R. Baji, M.A., Ph.D., Mr. S. Bhattacharya, M.A.
Philosophy	...	<i>Reader—</i> Dr. R. R. Sharma, M.A., Ph.D.
Economics	...	<i>Reader—</i> Dr. P. C. Thomas, M.A., Ph.D.
Commerce	...	<i>Professor and Head of the Department—</i> Mr. D. C. Sabharwal, M.A.(Glas.), B.Com. (Edin.), A.C.I.S.(Lond.) <i>Reader—</i> Mr. A. K. Mitra, M.A., B.Com., A.C.A.
Assamese	...	<i>Professor and Head of the Department—</i> Dr. B. K. Kakati, M.A., Ph.D. <i>Reader—</i> Dr. B. K. Barua, M.A., Ph.D. (Lond.)
Botany	...	<i>Professor and Head of the Department—</i> Dr. H. K. Barua, M.Sc., Ph.D.(Cantab.)
Education	...	<i>Readers—</i> Dr. D. C. Das Gupta, M.A., Ed.D., Mr. B. C. Kar, M.A., B.T., M.A. (Ed.), (Lond.), and Dr. N. Mukherji, M.A., Ph. D. (Lond.)

Law Department

*Principal of the University Law College—*Mr. J. Bora, B.L.

Under-graduate Department

(B.A. and B.Sc. Pass and Honours)

Education	...	One Lecturer.
Anthropology	...	Two Lecturers and One Demonstrator.
Statistics	...	Four Lecturers.
Geography	...	Three Lecturers.
Geology	...	Two Lecturers and One Demonstrator.
Labour Economics	...	One Lecturer.

Some of the Post-graduate teachers in Commerce and Education serve as part-time Lecturers in the Under-graduate Departments of Commerce and Education respectively. There are also additional Lecturers.

There are at present 240 students in the Post-graduate and 489 students in the Under-graduate classes. There are 282 students in the Law College.

Teachers' Training Department

Staff: Three Readers in Education.
 One Lecturer in Geography.
 One Lecturer in Hygiene.
 One Lecturer in English.
 One Lecturer in Assamese.
 One Lecturer in Bengali and Sanskrit.
 Two Demonstrators.

Scales of Pay

Professor ...	Rs. 700-50/2-1,000/-	} 10 per cent Dearness Allowance and House Allowance of Rs. 50 P. M. with P. F. benefits.
Reader ...	Rs. 500-50/2-700/-	
Lecturer ...	Rs. 250-25/2-600/-	

Budget and Provident Fund

The total funds of the University at the end of the financial year 1951-52 amounted to Rs. 16,27,489/-. As against this there was an expenditure of Rs. 13,36,731.

Every whole-time employee of the University holding a substantive appointment has to contribute to the University Provident Fund. Subscription to the fund is $6\frac{1}{4}$ per cent on the salaries of the depositors deducted monthly from their salaries. The University makes a monthly contribution of the same value for each subscriber.

Stipends

o Scholarships of Rs. 30, Rs. 35 and Rs. 50 p. m. are awarded to the students who stand first in the Matriculation, Intermediate and B.A., B.Sc. and B.Com. Examinations respectively.

Affiliated Colleges

<i>Name of College</i>	<i>Name of Principal</i>
Cotton College, Gauhati (I.A., I.Sc., B.A. and B.Sc.)	Dr. H. C. Bhuyan, M.Sc., Ph.D.
Handiqui Girls' College, Gauhati (I.A. and B.A.)	Mrs. R. B. Das, M.A.
Assam Medical College, Dibrugarh (M.B.B.S.)	Dr. G. D. Kapur, M.Sc., M.B., F.R.C.S.
Assam Agricultural College, Jorhat I.Sc. (Agri.), B.Sc. (Agri.)	Dr. M. C. Das, M.Sc., Ph.D.
J. B. College, Jorhat (I.A., I.Sc., I.Com., B.A., B.Sc. & B.Com.)	Mr. G. Datta, M.A., B.L.
H. S. K. College, Dibrugarh, (I.A., I.Sc., I.Com., B.A. & B.Com.)	Mr. J. R. Basu, M.A.
Nowgong College, Nowgong (I.A., I.Sc., I.Com. & B.A.)	Mr. J. Sarma, M.A.
Darrang College, Tezpur (I.A., I.Sc. & B.A.)	Mr. A. C. Roy, M.A., B.T.
M. C. College, Barpeta (I.A. & B.A.)	Mr. R. Das, M.Sc.
B. N. College, Dhubri (I.A. & B.A.)	Mr. B. C. Sen Gupta, M.A.
Gurucharan College, Silchar (I.A., I.Sc., B.Com. and B.A.)	Mr. R. K. Dutta Gupta, M.Sc.
Karimganj College, Karimganj (I.A., I.Sc., I.Com. & B.A.)	Mr. P. C. Bhattacharya, M.A.
St. Edmund's College, Shillong (I.A., I.Sc., B.A. & B.T.)	Rev. Brother E. X. Leonard, M.A.
St. Anthony's College, Shillong (I.A., I.Sc., I.C.m., B.A., B.Sc., & B.Com.)	Rev. D. J. Wollaston, S.D.B., D.D.
St. Mary's College, Shillong (I.A. & B.A.)	Mother M. De Sales.
Nalbari College, Nalbari (I.A. & B.A.)	Mr. T. N. Goswami, M.A.
D. M. College, Imphal, Manipur (I.A., I.Sc. & B.A.)	Mr. S. C. Chatterjee, M.A.
B. Barooah College, Gauhati (I.A. & A.A.)	Mr. H. K. Barua, M.A.
Lady Keane Girls' College, Shillong (I.A.)	Miss U. Bhattacharya, M.A.
Assam Veterinary College, Gauhati (First B.V.Sc. & A.H.)	Mr. G. K. Mehra, M.R.C.V.S.

Courses of Studies

<i>Degrees and Examinations</i> Intermediate Arts	<i>Duration</i>	<i>Subjects</i>	<i>Entrance qualifications</i> Matriculation or its recognised equi- valent.
...	Two years ...	(i) English, (ii) A recognised Vernacular (Assamese, Bengali, Hindi, Urdu, Nepali, Khasi, Manipuri, Gurumukhi) and (iii) Any three of the following subjects :— Sanskrit, Arabic, Persian, French, Assamese 2nd Language, Bengali 2nd Language, Hindi 2nd Language, Urdu 2nd Language, History, Logic, Mathematics, Civics, Commercial Geography, Commercial Arithmetic and Elements of Book-keeping.	
Intermediate Science	...	(i) English, (ii) A recognised Vernacular and (iii) Any three of the following subjects :— Mathematics, Physics, Chemistry, Geography, Botany, Biology, Zoology, and Anthropology.	Do.
		Three papers in English and one paper in Vernacular for both I. A.	

GAUHATI

and I.Sc. and two papers in each of the optional subjects including practicals in the Science subjects.

Intermediate Science (Agricultural).	Do.	...	(i) Group I: Agronomy, (ii) Group II: Botany, and Elementary Zoology; (iii) Group III: Chemistry, Soils; (iv) Group IV: Animal Husbandry, Veterinary Science; (v) Group V: Physics and Climatology, Mathematics; (vi) Group VI: English and Indian Languages.	Matriculation or its recognised equivalent.
--------------------------------------	-----	-----	--	---

Intermediate Commerce.	Do.	...	Compulsory: (i) English, (ii) Vernacular, (iii) Commercial Correspondence, (iv) Commercial Arithmetic, (v) Book-keeping, (vi) Commercial Geography, (vii) Elementary Economics, (viii) Salesmanship and Publicity, (ix) Business Methods, (x) Forms of Economic Organization.	Do.
------------------------	-----	-----	--	-----

Optional : Not more than two of the following subjects :—

(i) Insurance, (ii) Mathematics,
(iii) Elements of Civics and
Indian Administration.

B.A. (Pass and Honours) Two years I.A., I.Sc.

(i) English, (ii) A recognised Vernacular and (iii) two of the following subjects:—

Anthropology, Education, Statistics, History, Philosophy, Economics, Sanskrit, Persian, Arabic, Assamese 2nd Language, Bengali 2nd Language, and Mathematics.

Three examination papers in each of the above subjects except in the Vernacular for the Pass Course. Three additional papers in one of the subjects for the Honours Course.

B.Sc. (Pass and Honours) Do. ... Any three of the following subjects: I.Sc.

Anthropology, Statistics, Mathematics, Chemistry, Botany, Geography, Geology, Zoology and Physics for the Pass Course.

<i>Degrees and Examinations</i>	<i>Duration</i>	<i>Subjects</i>	<i>Entrance qualifications</i>
		Three examination papers including practicals in each subject for the Pass Course.	
		Three additional papers including practicals in one of the subjects, for the Honours Course.	
B.Sc. (Agriculture)	Two years	<p>(i) Agronomy: (a) Soil Management, (b) Special Crops, (c) Farm Management;</p> <p>(ii) Agricultural Botany: (a) Plant Physiology, (b) Genetics, Crop-breeding, Botany of Crop Plants;</p> <p>(iii) Agricultural Chemistry: (a) Soil Science, (b) Physiological and Plant Chemistry;</p> <p>(iv) Dairy Farming and Dairying;</p> <p>(v) Entomology;</p> <p>(vi) Plant Pathology and Bacteriology;</p> <p>(vii) Agricultural Engineering;</p> <p>(viii) Horticulture;</p> <p>(ix) Statistics;</p> <p>(x) Agricultural Economics;</p> <p>(xi) Tea Course.</p>	I.Sc. (Agri.)

B. Com. (Pass and Honours) Two years English, A recognised Indian Language, General Economics and I.Com. or Secretarial Practical of Indian Economics, Business Organisation, Commercial Law, Modern Economic Development, Accountancy and one of the following groups:—

Gauhati University

- (i) Advanced Accountancy and Auditing, (ii) Statistics, (iii) Banking, and (iv) Transport for the Pass Course.

Three additional papers in Accountancy or Labour Economics and Industrial Relations for the Honours Course.

B.A., B.Sc.

One of the following subjects:—

Education, Assamese Mathematics, Economics, Statistics, History, Philosophy, and Botany.

Eight Examination Papers in each subject.

B.Com.

Eight Examination papers. Compulsory:—

Do.

M.A., M.Sc.

...

...

Do.

M.Com.

...

...

Degrees and Examinations	Duration	Subjects	Entrance qualifications
		Compulsary :—	
		1. Applied Economics	
		2. Organization of Markets	
		3. Organization of Industries	
		4. Corporation Finance	
		5. Economics of Agriculture	
		6. Co-operation and Rural Development	
		7. Foreign Exchanges.	
		Optional :—(Any one of the following) :—	
		1. International Banking	
		2. Organization of Trade and Transport	
		3. Labour Administration	
		4. Advanced Accountancy.	
B.T.	... .. One Year	Compulsory :	B.A., B.Com. or B.Sc.
		(i) Principles of Education including Educational Psychology (two papers) ;	
		(ii) History of Education ;	
		(iii) General Methods, School Organization and School Hygiene ;	

(iv) Contents and Methods of teaching any three of the following school subjects:

English: A Classical Language; Assamese or Bengali or Hindi or Urdu; A Modern European Language: French or German; History; Mathematics; Geography (equivalent to 2 subjects); Hygiene; Music; Arts and Crafts; Physical Sciences (Physics, Chemistry and Astronomy) Botany, Zoology, Physiology and Geology; Primary and Infant School Subjects.

(v) Essay and Composition;

(vi) One of the following additional subjects:—

(a) Mental and Educational Measurements;

(b) Social and Abnormal Psychology applied to Education;

(c) Mental Hygiene and Child Guidance;

(d) Methods and Organization in Nursery Schools, Kindergartens and Montessori Schools;

<i>Degrees and Examinations</i>	<i>Duration</i>	<i>Subjects</i>	<i>Entrance qualifications</i>
		(e) Comparative Education with reference to selected—countries in Europe and America ;	
		(f) Education of Handicapped Children with reference to some selected types.	
M.B., B.S. ...	... Five years and one year of Clinical practice.		I.Sc. with Biology.
B.V.Sc. & A.H. ...	... Four years with Clinical practice.		Matriculation or its recognised equivalent.
B.L. ...	... Three years		B.A., B.Com. or B.Sc.
Diploma in Secretarial Practice.	Two years	English (one paper), General Commercial Knowledge (one paper), Economics (one paper), Book-keeping (one paper), Company Law (one paper), Secretarial Practice (two papers), Business Methods (one paper) and Shorthand and Typewriting.	Matriculation or its recognised equivalent.

Laboratories and Library

There are well-rquipped laboratories in the departments of Botany, Geology, Geography, Statistics and Anthropology. The Library is located in the Law College buildings where the Post-graduate classes are at present held. A sum of Rs. 20,000 is provided for purchasing books in the Annual Budget.

Examination Fees

						Rs.
Matriculation	...	...	...	...	...	18
I.A. and I.Sc.	...	...	...	...	...	30
B.A. and B.Sc.	...	...	...	...	...	45
B.A. and B.Sc. (with Hons.)	...	...	...	...	...	55
I.Sc. (Agri.)	...	...	...	...	...	40
B.Sc. (Agri.)	...	...	...	...	...	55
B.T.	...	...	...	...	...	40
B.Com.	...	...	...	...	...	45
B.Com. (Honours)	...	...	...	...	...	55
Diploma Exam. in Secretarial Practice...	...	...	...	...	...	30
B.L.	...	...	...	...	...	30
M.A. and M.Sc.	...	...	...	...	...	100
M.B.,B.S.	...	...	...	...	...	100
B.V.Sc. & A.H.	...	...	...	...	...	100

Examination Results 1952

<i>Examinations</i>	<i>No. of candidates</i>	<i>No. passed</i>
Matriculation	9165	4642
I. A.	2091	613
I.Sc.	992	362
I.Sc. (Agri.)	29	12
I.Com.	258	71
B.A.	947	363
B.Sc.	158	100
B.Sc. (Agri.)	20	11
B.Com.	210	75
First M.B.B.S.	67	35
Final M.B.B.S.	41	12
B.T.	47	28
Law : Preliminary	60	20
Inter	14	8
Final	14	8

GAUHATI

<i>Examinations</i>				<i>No. of candidates</i>	<i>No. passed</i>
M.A.	Economics	...	...	17	11
	Philosophy	...	...	9	6
	History	...	...	16	11
	Assamese	...	...	6	6
M.Sc.	Mathematics	...	...	11	6
	Botany	...	...	8	8
	Statistics	...	...	10	8
M.Com.	...	...	...	20	17
Teachers' Training	Certificate	...	...	15	6
in Geography	...	...	...	23	6
Secretarial Practice	...	...	...

Students' Advisory Bureau

Secretary: Dr. B. K. Varuah, M.A, B.L., Ph.D.

The aim of the Bureau is to help students with advice and information regarding courses and conditions of studies in India and abroad.

Military Training

The National Cadet Corps has been organised under the auspices of the Government of Assam and the University. Military Education has been introduced as an additional subject for the Intermediate Examination.

Residential Scheme

The University will be ultimately located at Pandu, seven miles from Gauhati, where building operations are in progress. Satisfactory interim arrangements for the residence of students and staff have been made in the University colony at Chandmari, Gauhati. There are three hostels and twenty residential quarters at the foot of the Navagrah Hills. A qualified Medical Officer is attached to the Hostels.

Women's Education

There are several colleges for women affiliated to the University, and J.B. College, Jorhat maintains a separate section for women. All the courses and privileges of the University are open to women students. A certain number of seats in the

Post-graduate Classes in Science is reserved for women and accommodation is provided for a limited number of women students of the Post-graduate Classes in the S. W. Memorial Hostel and the Handiqui Girls' College Hostel at Gauhati.

Financial Statement

	Rs.
Receipts during the year—Government	
grant	5,00,000
Fees	5,46,180
Endowments, Scholarships, Publica-	
tions, etc.	94,680
Miscellaneous	59,097

Proportion of Government grant to the other sources of income is 5 : 7.

Subjects for Post-graduate studies and Research :—

Assamese, History, Philosophy, Economics, Commerce,
Mathematics, Statistics and Botany.

An Areca-nut research scheme sponsored by the Central Government is in operation in the Botany Laboratory.

GUJARAT UNIVERSITY

Pursuant to a policy of de-centralising the University administration in the State of Bombay, it was decided to create a number of Regional Universities. In furtherance of this object, the Gujarat University Act 1949—Bombay Act No. L of 1949 was passed by the Bombay Legislative Assembly in November 1949, to establish and incorporate a Teaching and Affiliating University to be known as the Gujarat University. The Act was assented to by His Excellency the Governor of Bombay on the 21st November 1949.

Shri Harasiddhabhai V. Divatia, M.A., LL.B., was appointed the First Vice-Chancellor of the University and Shri N. R. Trivedi, B.A. (Cantab.), M.A. was appointed the first Registrar of the University.

An Advisory Committee of fifteen persons was appointed to assist the First Vice-Chancellor.

The Government also appointed Dr. K. G. Naik, M.A. (Bom.), D.Sc. (Lond.), F.R.I.C., F.N.I., to be the First Rector of the University.

The election to the Senate were completed between the 10th to 30th August 1950 and the first meeting of the Senate was held on 20th October 1950. The elections to the various authorities of the University, *viz.*, the Syndicate, the Academic Council, the Faculties were held between the 12th September 1950 and 20th October 1950. On 21st November 1950 Government issued a Notification directing that the authorities of the Gujarat University constituted under the Act shall commence to exercise their functions with effect from the 23rd November 1950. Thus the University became incorporated with effect from 23rd November 1950.

One of the important features of the Gujarat University Act is that within three years from the date of its incorporation, the University has to take over and conduct all the teaching work beyond the stage of Intermediate Examination within the area of City of Ahmedabad and such other contiguous areas as the Senate may determine. All the Colleges outside the Ahmedabad Area but

constituted within the Gujarat University Area will remain affiliated to the University. Thus the University is a combination of the Teaching and the Affiliating type of University. All the Post-graduate Instruction, Teaching and Training within the University Area is conducted by the University or its Institutions in such subjects as may be prescribed by Statutes.

University Office Building

The University still continues to hold its office in the Electrical Laboratory Wing of the L. D. Engineering College, Ahmedabad. The Senate in its Meeting held on 3/4/5th March 1952 gave administrative approval to the Plans and Estimates of the University Building. The Building consists of three wings with an underground cellar ground-floor and first floor, each connected by a Main Hall. Two of the wings are to be used for the Administrative Office of the University and it is proposed to house the University Library in the third wing. Above the main connected hall, will be a Tower 160 feet high from the ground level. Between the two administrative wings will be a Convocation Hall, which will be used for the purposes of Convocation and meetings of the Senate. The whole building is estimated to cost Rs. 27,14,155. As the University has been given a capital grant of Rs. 4,00,000 by the Government during the year 1951-52, it is not possible for the University to take up the construction of the whole building immediately. It has therefore been decided to construct the two administrative wings and the main connecting hall in the first instance. This is estimated to cost Rs. 11,19,007. (Rs. 9,89,007 for building *plus* Rs. 1,30,000 for fittings). The Third Wing, *i.e.*, the Library Wing, the Tower and the Convocation Hall will be added subsequently as and when finances permit. The construction of the two administrative wings and the main hall is expected to be taken up immediately and completed in about a year and a half.

Constitution of the University

The Senate is the supreme governing body of the University. It ordinarily meets once a year in August on a date to be fixed by His Excellency the Chancellor and at such other time as may be convened by the Vice-Chancellor. A meeting of the Senate must also be convened on a requisition by 25 members of the Senate. The executive powers vest in the Syndicate, and the Academic Council is the chief academic body of the University.

There are at present seven Faculties, *viz.*, Arts including Education, Science, Technology including Engineering, Agriculture, Law, Medicine, and Commerce.

Officers and Staff of the University

The Chancellor

Shri Girjashanker Bajpai, B.A.(Oxon.), B.Sc. (Allahabad),
I.C.S., Governor of Bombay.

The Vice-Chancellor

Shri Harasiddhbhai V. Divatia, M.A., LL.B.

Deans

Shri R. C. Parikh, B.A. (Hons.) Faculty of Arts.
Dr. M. S. Shah, M.Sc., Ph.D.(Lond.) Faculty of Science
Prin. A. de Souza, B.A., B.E., Faculty of Technology
A.M.I.C.E. including Engineering.
Prin. M. D. Patel, M.Sc. (Cornell), Faculty of Agriculture.
Ph.D. (Wisconsin).
Prin. T. K. Mody (Sardar Davar), Faculty of Law
B.A., LL.B., Bar-at-Law.
Dr. M. D. Patel, M.B.B.S., F.R.C.S. Faculty of Medicine.
(Eng.), D.L.O. (Lond.)
Prin. S. V. Desai, M.S. (Columbia) Faculty of Commerce.

Members of the Syndicate (17)

(Section 19 (1) of the Gujarat University Act, 1949).

1. Shri Harasiddhbhai V. Divatia, M.A.; LL.B.
Vice-Chancellor,
Gujarat University,
Ahmedabad-9.
2. Shri N. R. Trivedi, B.A. (Cantab.), M.A.
Dy. Director of Education,
Bombay State,
Poona.

Dean elected by the Deans of Faculties

3. Dr. M. D. Patel, M.B.B.S., F.R.C.S. (Eng.), D.L.O. (Lond.).
Motiganga, Ambavadi, Ellis Bridge,
Ahmedabad-6.

Eight members elected by the Senate :—

- Shri B. K. Mazumdar, M.A.,
C/o Arvind Mills, Naroda Rd., Ahmedabad.
 - Shri Batubhai H. Desai, B.A., LL.B.,
Raipur, Opp. Bauwa's Pole,
Ahmedabad.
6. Shri Sheth Amritlal Hargovandas, B.A., LL.B.,
Behind Town Hall, Ellis Bridge, Ahmedabad.
 7. Shri Bhailalbhair D. Patel, L.C.E.,
Chairman, Charutar Vidya Mandal,
Vallabh Vidyanagar, (Via) Anand.
 8. Shri Maganbhai P. Desai,
Gujarat Vidyapith, Ahmedabad-9.
 9. Shrimati Indumatiben Chimanlal,
Deputy Minister of Education,
Bombay State, Bombay.
 10. Dr. Bhaskar R. Patel, M.D., M.R.C.P., T.D.D.,
20, New Queens Rd., Bombay-4.
 11. Shri Popatlal G. Shah, M.A., B.Sc.,
Lalit Kunj, 11th Road,
Khar, Bombay-21.

Five Principals of Colleges elected by Principals of Colleges in the Gujarat University Area :—

12. Principal S. V. Desai, M.S. (Columbia),
H. L. College of Commerce,
Navrangpura, Ahmedabad-9.
(Faculty of Commerce).
13. Principal S. B. Junnarkar, B.A., B.Sc. (Eng.), (Lond.),
Birla Vishvakarma Mahavidyalaya, Vallabh Vidyanagar,
(Via) Anand.
(Faculty of Technology including Engineering).

Serial No.	Name of the College	No. of Students 1951-52
3.	Sheth Vadilal Sarabhai General Hospital Sheth Chinai Maternity Home, Ahmedabad-6	21
		<hr/> 15521 <hr/>

No. of Successful Students in the University in the First Half of the Year 1952

Examination.	No. of successful students
1. T. D. (Part I & II)	29
2. F.Sc. (Agri.)	38
3. S.Sc. (Agri.)	43
4. B.Sc. (Agri.)	67
5. Inter Science	853
6. B.Sc. (Sub.)	462
7. B.Sc. (Prin.)	481
8. Inter Arts	728
9. Inter Commerce	180
10. B.Com.	126
11. First LL.B.	211
12. First M.B.B.S.	42
13. Second M.B.B.S.	32
14. Third M.B.B.S.	10
15. F.E.	172
16. S. E. (Civil)	87
17. S. E. (Mech. & Elect.)	42
18. B. E. (Civil)	50
19. B.E. (Mech. & Elect.)	32
20. Second LL.B.	112
21. B.A. (Special)	424
22. B.A. (General)	76
23. M.A.	56
24. M.Sc. (Maths.) ... ..	...
25. M.Com.	7
26. M.Sc. (Physics)	10
27. N. D. (Old)	1
28. M. S. (New Part I) ... ..	...
29. M. S. (Old Course) ... ..	...

Library

The University Library, which is very recently established is under the management of the Library Committee, subject to the general control of the Syndicate. The total number of volumes in the Library at the end of the year was 1720. The amount spent on books and periodicals during the year 1951-52 was Rs. 29,220-0-6.

Military and Physical Training

The 4th Bombay Bn. N.C.C. which has got its Head Quarters at Ahmedabad and detachment at Anand and Surat, is a 3 Coy. Bn. The distribution of the various Pls. is as under :—

Ahmedabad

Gujrat College	2 Pls.
L. D. Arts College & M. G. Science Inst.	2 Pls.
H. L. College of Commerce	1 Pl.

Anand

V. P. Mahavidyalaya	2 Pls.
----------------------------	--------

Surat

M. T. B. College	2 Pls.
-------------------------	--------

The strength of each Platoon is approximately 45. The Cadets are given training in Drill and also in the use of small arms and in subject—Field Craft First-Aid, Sanitation and Hygiene.

The Parades are held three times a week and in one academic year training is given for five complete months.

Enrolment in the N. C. C. is voluntary and there is no service liability.

Physical Training

The University has appointed a Director of Physical Education to organise and co-ordinate the Physical Education of students studying in the colleges affiliated to the University.

Physical training is compulsory for the first two years in colleges. There is provision for out-door games like Cricket, Football, Tennis and Hockey in most of the Affiliated Colleges and a large number of students take advantage of these facilities. The University Board of Sports has been already constituted and has started functioning in co-operation with the Board of Students' Welfare. Last year this University participated in the Inter-University Tennis Tournament and our team won in the finals of the North Zone but in the finals against the winners of the South Zone it was defeated. In the Combined University Cricket Team organized to play against M. C. C. last year, one player of this University was included. This year the University Board of Sports has proposed to organise Inter-Collegiate and Inter-Group Sports and has also decided to participate in Cricket, Tennis, Hockey and Athletic Sports to be conducted by the Inter-University Board of India during the current year.

Residence of Students

Most of the Colleges have suitable hostels, where residential accommodation is provided to a fair proportion of the students.

Foreign Universities Information Bureau

The Foreign Universities Information Bureau of this University has been recently constituted with a view to help students intending to proceed to foreign universities for further studies by supplying them with all possible information about various course available at different universities, the conditions of admission to various courses, and hostel and residential facilities, scholarships etc., and also to help them in securing admission to courses for which they may be eligible by sending their applications through proper channels. Shri B. A. Patel, B.Sc., B.E., the Registrar of this University is the Secretary of the Bureau.

The Bureau has already gathered nearly 1,500 prospectuses, hand-books and calendars of various universities and educational institutions of U. S. A., U. K., Australia, New Zealand, Africa, Pakistan, Germany, France, Italy, Netherlands, Switzerland, Belgium, etc.; and of other Indian universities. Besides this the Bureau also stocks six reference books connected with University education.

Employment Bureau

An Employment Bureau has been recently constituted in this University.

Shri B. A. Patel, B.Sc., B.E., Registrar and Secretary of the Foreign Universities Information Bureau of this University, has been appointed Secretary of the Bureau.

Application forms for registration with this Bureau have been supplied to many applicants and some of them have already been registered. Many big institutions, firms, industrial concerns, etc., were requested to co-operate with this Bureau and replies from many of them have been received offering their co-operation.

ADMISSION TO THE UNIVERSITY, COURSES OF STUDIES, EXAMINATION AND DEGREES

Admission to the University

Admission to the University in the First Year Arts, the First Year Science and the First Year Commerce Classes is open to students who have passed the S.S.C. Examination in certain specified subjects and to students who have passed the Matriculation or the Entrance Examination conducted by any Statutory University in India. The Rule governing these admissions is given below :

For admission to the First Year Arts, the First Year Science and the First Year Commerce Classes of this University, an applicant must have passed :—

I. The Secondary School Certificate Examination conducted by the Secondary School Certificate Examination Board of the Bombay State with the following subjects with at least 35 per cent of the total marks under each Head :—

- (1) General English without Texts : One paper 100 marks.
- (2) (a) One of the following Languages : One paper 100 marks.
Gujarati, Hindi, (with texts), Marathi, Kannada, Tamil,
Telugu, Bengali, Sindhi, Urdu and English.

and

- (b) (i) One of the Classical Languages : One paper 100 marks.

Sanskrit, Pali, Ardha-Magadhi, Avesta-Pahlavi, Latin, Greek, and Hebrew :

or

(ii) One of the following Modern Languages :
French, German, Portuguese, Spanish, Italian, Persian and Arabic ;

(3) (i) History One paper 100 marks.

or

(ii) Geography One paper 100 marks,

(4) Mathematics :

(i) Algebra

One Paper 100 marks.

(ii) Geometry

One paper 100 marks.

and

(5) One of the following :—

(i) General Science, or

(ii) Physics and Chemistry, or

(iii) Botany and Zoology, or

(iv) Domestic Science, or House Craft, or

(v) Physiology and Hygiene ;

100 marks;

Provided that

(a) A student passing the S.S.C. Examination conducted by the S.S.C. Examination Board in the subjects prescribed from time to time (1) for Agricultural or Technical Schools, or (2) for Commercial Schools shall also be eligible for being enrolled as a student of the University for the First Year Course in Science or the First Year Course in Commerce, as the case may be ;

and provided further that,

(b) A student passing the S.S.C. Examination conducted by the S.S.C. Examination Board in the subjects specified in proviso (a) above, shall also be eligible for being enrolled as student of the University for the First Year Course in Arts, provided such a student passes, in addition, at the said examination, an examination in any of the Ancient or Modern Languages*, with 35 per cent of the marks.

OR

II (a) For admission to the First Year Arts and First Year Commerce classes of this University, an applicant must have passed the S.S.C. Examination conducted by the S.S.C.E. Board

*The Languages are those mentioned under 2 (b) above.

of the Bombay State in the following subjects with at least 35 per cent of the total marks under each of the following Heads:—

(1) General English	One paper	100 marks.
(2) Mother Tongue**	One paper	100 marks.
(3) Classical Language	One paper	100 marks.
(4) History	One paper	100 marks.
(5) Geography	One paper	100 marks.

Provided that in the other subjects covering 200 marks, which the candidate has to take as prescribed under the S.S.C. Syllabus the candidate has obtained at least 35 per cent of the total marks for each of those subjects.

(b) For admission to the First Year Science and First Year Commerce Classes of this University, an applicant must have passed the S.S.C. Examination conducted by the S.S.C.E. Board of the Bombay State in the following subjects, with at least 35 per cent of the total marks in each of the following Heads:—

(1) General English	One paper	100 marks.
(2) Mother Tongue**	One paper	100 marks.
(3) Mathematics :	One paper	100 marks.
(i) Algebra	One paper	100 marks.
(ii) Geometry	One paper	100 marks.
(4) Any Science subject under above	One paper	100 marks.

Provided that in the other subjects covering 200 marks, which the candidate has to take as prescribed under the S.S.C. Syllabus, the candidate has obtained at least 35 per cent of the total marks for each of those subjects.

OR

III. The School Leaving Certificate Examination held by the Government of Bombay under the following conditions:—

(a) the holder of the School Leaving Certificate, who has completed and passed in the courses laid down for Agricultural School is deemed eligible for admission to the First Year Science Course.

(b) The holder of the School Leaving Certificate, who has completed and passed in the course laid down for

** Explanation: "Mother Tongue" i.e. languages mentioned in clause I (2) (a).

Technical Schools, is deemed eligible for admission to the First Year Science Course ;

(c) The Holder of the School Leaving Certificate, who has completed and passed in the courses laid down for Commercial Schools, is deemed eligible for admission to the First Year Commerce Course ;

(d) The holder of the School Leaving Certificate, who has attended a vocation School and passed the examination for the course concerned and who seeks admission to the First Year Course in Arts, is deemed eligible for admission thereto provided he passes in a test in a Language mentioned in clause I (2) (b) this statute of the S.S.C. Standard.

OR

IV. The Entrance Examination, if any, which may be instituted by the University with the consent of the Provincial Government ;

OR

V. Any other examination recognised by the University as equivalent to any of the examinations named above, and which satisfies such other conditions as may be laid down in granting such equivalence.

Admission to the Courses of Studies for the Degrees of Bachelor of Engineering, Bachelor of Medicine and Bachelor of Surgery and Bachelor of Pharmacy are granted only to those who have passed the Intermediate Science Examination of this University, or any other equivalent Examination of a Recognized University in a specified group of subjects.

Admission to the courses of study leading to the Bachelor of Science (Agriculture) Examination is open only to those students who have passed the First Year Science Examination.

Admission to the Law Courses is open to students who have passed the Intermediate Arts, the Intermediate Science or the Intermediate Commerce Examinations. Ordinances and Regulations regarding the admission of the New Law Course is under consideration of the University Authorities.

Admission to the Post-Graduate Courses in a particular Faculty is available to students who have passed the Bachelor's Degree in that Faculty.

Courses of Studies and Examinations

The University offers in Arts the Diploma in Teaching, B.A. (General and Special), M.A. and Ph.D. Degrees ; in Science B.Sc., M.Sc. and Ph.D. Degrees ; in Commerce, B.Com., M.Com. and Ph.D. Degrees ; in Agriculture, B.Sc. (Agriculture) and M.Sc. (Agriculture); in Engineering, B.E. (Civil, Mechanical and Electrical) and M.E. (Civil, Mechanical and Electrical) Degrees ; in Law, the LL.B. and the LL.M. Degrees; in Medicine, the Degrees of M.B., B.S., Bachelor of Pharmacy, B.Sc. (Medical), M.Sc. (Medical), M.D. and M.S. and Post-Graduate Degrees and Diplomas of Bachelor of Hygiene, Doctor of Hygiene, Diploma in Ophthalmology, Diploma in Psychological Medicine, Diploma in Forensic Medicine, Diploma in Medical Radiology and Electrology, Diploma in Anaesthesiology, Diploma in Pediatrics, Diploma in Laryngology and Otology, Diploma in Tuberculosis Diseases and Diploma in Venereology and Dermatology.

Intermediate Arts

(i) *Intermediate Examination.*—The course of study for this examination extends over two academic years during the first of which candidates are examined by affiliated colleges in the subjects of the First Year Courses which have been grouped as shown below, and the eligibility of candidates to enter upon the courses for the Intermediate Arts, the Intermediate Science or the First Year Examination in Agriculture shall be determined in accordance with the subjects in which they satisfy the Principal of a college, as under:—

- (i) Candidates with subjects of group (a) or group (c) shall be eligible for entering upon the course for the Intermediate Arts.
- (ii) Candidates with subjects of group (b) or group (c) shall be eligible for entering upon the course for the Intermediate Science Examination.
- (iii) Candidates with subjects of group (b) shall be eligible for entering upon the course for the First Year Examination in Agriculture.

The following are the Groups and the subjects under them appointed by the University for the first two terms and candidates

shall take any one of the three groups A, B, C, as mentioned below:—

Group A

Compulsory Subjects:—

I. 1 (a) English Prose and Poetry 100 marks 3 hours.
(Text).

and

(b) Composition in English with
text 75 marks 2 hours.

Note.—A book will be recommended as an aid to the art of writing. No questions with reference to the context will be asked.

2. Modern Indian Language with
texts or an additional paper
in English with texts 100 marks 3 hours.

3. Classical Language or a Modern
European Language other
than English with texts, 1
paper 100 marks 3 hours

Optional Subjects:—

The following shall be the optional subjects out of which the candidates will be required to take any such subjects from among them as carry 300 marks in the aggregate.

1. Indian Administration: 1 paper 100 marks 3 hours
Section I.—Growth and Development of the constitution.

Section II.—Present Constitution.

2. Civics. 1 Paper 100 marks 3 hours

3. Outlines of Ancient Indian History
and Culture: 1 paper 100 marks 3 hours

4. Geography: 1 paper 100 marks 3 hours

5. Mathematics, 2 papers, each of 100 marks and of 3 hours' duration.

Group B

1. English Prose and Composition
with texts 100 marks 3 hours

Note.—A Book shall be recommended as an aid to the art of writing. No questions with reference to the context will be asked.

2. Modern Indian Language with texts
or an additional Paper in English
with texts 100 marks 3 hours
3. Physics: One paper of 100 marks, 3 hours, 50 marks for
practical.
4. Chemistry, One paper of 100 marks, 3 hours, 50 marks for
practical.
5. Biology: One paper of 100 marks, 3 hours, 50 marks for
practical.
6. Mathematics: Two Papers, each of 100 marks and of 3 hours'
duration.

Group C

Compulsory subjects:—

1. (a) English Prose and Poetry (Texts) 100 marks 3 hours.
and
(b) Composition in English with texts 75 marks 2 hours.

Note.—A book shall be recommended as an aid to the art of writing. No questions with reference to the context will be asked.

2. Modern Indian Language with texts
or an additional Paper in English
with texts 100 marks 3 hours.
3. Mathematics: Two papers, each of 100 marks and of 3
hours' duration.

Optional subjects:—

The following shall be the optional subjects from among which candidates will be required to take either Physics or Chemistry, and two other subjects carrying 200 marks in the aggregate:—

1. Physics: One paper of 100 marks and 3 hours, and a practical
of 50 marks.
2. Chemistry: One Paper of 100 marks and 3 hours, and a
practical of 50 marks.
3. Classical Language or Modern
European Language other
than English
with texts 1 paper 100 marks 3 hours.

4. Indian Administration	1 paper 100 marks 3 hours.
5. Civics	1 paper 100 marks 3 hours.
6. Outlines of Ancient Indian History and Culture	1 paper 100 marks 3 hours.
7. Geography	1 paper 100 marks 3 hours.

At the Intermediate Examination held by the University at the end of the second year, candidates are examined—

1. (a) English Prose and Poetry (Texts).
and
(b) Composition in English with texts.
2. Modern Indian Language with texts or an additional paper in English with texts.
3. A classical language, or a Modern European Language other than English, with texts.
4. World History.
5. Elements of Economics.
6. Mathematics or Logic : 2 papers, each of 100 marks and 3 hours.

The minimum for a pass is 30 per cent of the full marks in each head. Candidates who obtain 60 per cent of the aggregate are placed in the First Class and those who obtain 45 per cent in the Second Class.

(ii) B.A. (General and Special) The course of study for the B.A. (General Examination) extends over two academic years, subsequent to passing the Intermediate Arts Examination and that for B.A. (Special) Examination over the same period.

The Schemes for the B.A. General and Special Courses are as follows :—

I. B.A. General

1. *English (Compulsory)*.—Two papers of three hours and one hundred marks each, of which one shall include —composition.

II. Four other voluntary subjects (with two papers in each of three hours and one of one hundred marks each as hereinafter otherwise provided) to be selected from the following Groups (A) to (G), provided that the candidate chooses his subjects from at least three Groups and provided further that the candidate who takes (D) (iv) shall take (D) (i) and that the candidate who takes (F) (v) shall take (F) (i) but not D (iv).

N.B.—Identical subjects occurring under two separate Groups shall not be offered by candidates as two separate Subjects.

(A) *Languages* :—

(a) Modern European; English, French, German, Portuguese, Italian, and Spanish—2 papers based on texts of Modern Literature, Prose, Poetry and Drama in each Language.

(b) Modern Indian : Marathi, Gujarati, Kannada, Sindhi, Urdu and Hindi—

2 papers as under :—

Paper I : Poetry

Paper II : Prose and Drama.

(c) *Classical*.—Oriental and European : Sanskrit, Pali, Ardhamagadhi, Arabic, Persian, Avesta-Pahlavi, Latin, Greek and Hebrew—2 papers—Texts.

(B) *Philosophy*—

(i) History of Philosophy ; (ii) Psychology ; (iii) Moral and Social Philosophy ; (iv) Applied Psychology (v) Education and (vi) Experimental Psychology.

(C) *History*—

(i) Ancient Europe, (ii) Modern Europe, (iii) Ancient and Mediaeval India, (iv) Modern India, (v) Persian History, (vi) Constitutional History, (vii) Political Science, (viii) Ancient Indian Culture and (ix) Islamic Culture.

(D) *Economics*—

(i) Principles of Economics, (ii) Economic History, (iii) Political Science, (iv) Statistical Method and (v) Society and Social Evolution.

(E) *Sociology*—

(i) Cultural Anthropology, and (ii) Society and Social Evolution.

(F) *Mathematics*—

(i) Pure Mathematics, (ii) Applied Mathematics ; (iii) Algebra and Geometry, (iv) Calculous and Differential Equations and (v) Statistics.

N.B.—Subjects (iii) and (iv) must be taken together.

(G) *Sciences*—

(i) Physics, (ii) Chemistry, (iii) Botany, (iv) Zoology, (v) Geology, (vi) Geography and (vii) General Science.

II. B.A. Special

I. *English (Compulsory)*—Two papers of three hours and one hundred marks each, of which one shall include Composition.

II. Four other voluntary subjects (with two papers in each of three hours and one hundred marks each save as hereinafter otherwise provided), so that at least three subjects listed in Roman Numerals under any one Group from among the Groups (B) to (F) or three heads listed in Roman Numerals under any one language from among the languages under Group (A)—sub-groups (a) to (d), are selected. Provided further that a language offered in addition to the six papers in a language is not from the same sub-group from which six papers are selected, except that in the case of Hindi as a special subject or a general subject this proviso will not operate. Also it will be open to have two papers in Pali or Ardhamagadhi with six papers in Sanskrit or to take two papers in Sanskrit with six papers in Pali or Ardhamagadhi. The two papers to be answered in this additional language will be the two papers as laid down for the B.A. General in the language concerned.

Note 1.—The proviso requiring the choice of an additional language, if offered, to be made from a sub-group other than the one to which the language in which 6 papers are offered for Honours belongs, will be in operation from June 1950.

Note 2.—No candidate can take Statistical Method in Group D (Economics) and Statistics under Group E (Mathematics) at the same time.

The groups and sub-groups and subjects are as under:—

N.B.—Identical subjects occurring under two separate Groups shall not be offered by candidates as two separate subjects.

(A) *Languages* :

(a) *English*—

(i) *Papers I and II*—The same as for the B.A. (General).

- (ii) Two literary forms ; Chaucer (Prologue and a Canterbury Tale), and History of the English Language.
- (iii) Criticism and Prosody ; History of English Literature.

(a) *Old English*—

- (i) Anglo-Saxon
- (ii) Middle English
- (iii) Social History.

(b) *Modern European*.—French or German or Portuguese or Italian or Spanish.

(i) *Papers I and II*.—The same as for the B.A. (General).

(ii) Translation, Essay, Grammar and Oral 2 papers.

(iii) History of Literature from 1500 to 1800 A. D. with a few outstanding illustrative works 2 papers.

(c) *Modern Indian*.—Marathi or Gujarati or Kannada or Sindhi or Urdu or Hindi.

(i) *Papers I and II*:—The same as for the B.A. (General).

(ii) *Paper III*:

- | | |
|---------------------------------------|-----------|
| 1. Essay | 30 marks. |
| 2. Grammar | 30 marks. |
| 3. Origin and Development of Language | 25 marks. |
| 4. Translation in the same language | 15 marks. |

Paper IV.—Literary Criticism : Indian and Western.

Paper V.—A study of the History of the Literature.

Paper VI.—A detailed and comprehensive study of three well-known works of different periods including the study of the Literary forms of each.

(d) *Classical*.—Sanskrit or Pali or Ardha-magadhi or Avesta-Pahalvi or Persian or Arabic or Greek or Latin or Hebrew.

(i) *Papers I and II*.—The same as for the B.A. (General).

(ii) Translation, Grammar and History of Literature —2 papers.

(iii) Old Literature according to the basis requirements of each language—2 papers.

(e) Ancient Indian Culture of Islamic Culture—2 papers each.

(B) *Philosophy*—

(i) History of Philosophy ; (ii) Psychology ;

(iii) Moral and Social Philosophy ; (iv) Applied Psychology ; (v) Education ; (vi) Experimental Psychology ; (vii) Logic and Metaphysics ; (viii) Psychology and Philosophy of Religion and (ix) Abnormal and Animal Psychology.

N.B.—Candidates taking special course must take at least one of the subjects No. (vii) to (ix). Candidates who take No. (ix) shall take No. (ii).

(C) *History*—

(i) Ancient Europe, (ii) Modern Europe, (iii) Ancient and Mediaeval India, (iv) Modern India, (v) Persian History, (vi) Constitutional History, (vii) Political Science, (viii) Ancient Indian Culture, (ix) Islamic Culture, (x) Physical Anthropology, (xi) Cultural Anthropology.

(D) *Economics*—

(i) Principles of Economics, (ii) Economic History, (iii) Political Science, (iv) Statistical Methods, (v) Society and Social Evolution and (vi) Indian Economic Problems.

N.B.—Every candidate for the B.A. (Special) in Economics must offer (i) and (vi).

(E) *Sociology*—

(i) Cultural Anthropology, (ii) Society and Social Evolution and (iii) Social Organization and Social Amelioration.

(F) *Mathematics*—

(i) Algebra and Geometry, (ii) Calculus and Differential Equations, (iii) Mechanics, (iv) Astronomy, Electricity and Magnetism and (v) Statistics.

N.B.—Subjects (i), (ii) and (iii) are compulsory.

(G) *Science*—

- (i) Physics, (ii) Chemistry, (iii) Botany, (iv) Zoology,
(v) Geology, (vi) Geography and (vii) General
Science.

(iii) *Master of Arts (M.A.)*.—The course of study extends over two years subsequent to passing the B.A. Examination. A candidate is required to study and be examined in one of the following branches, Languages, History, Philosophy, Mathematics, Ancient Indian Culture and Islamic Culture. The examination consists of eight papers in each subject. A thesis may be offered in lieu of the whole examination in the subjects of History and Philosophy or in lieu of the four Principal papers in Sanskrit, Pali, Ardhamagadhi, Persian, or Arabic subject to certain conditions. The minimum for a pass in Mathematics is either 40 per cent in the aggregate or 25 per cent in each paper and $37\frac{1}{2}$ per cent in the aggregate, and in other subjects it is one-fourth of the full marks in each paper and three-eighths in the aggregate. In languages a candidate must obtain 25 per cent in each of the eight papers, 30 per cent in the total of two papers in his subordinate language and 40 per cent in the total of the six papers in the principal language. Candidates who obtain 65 per cent, in the aggregate are placed in the First Class and those who obtain 50 per cent in the Second Class.

II Science

(i) *Intermediate Examination*.—A candidate has to pass in either Group B or Group C in the First Year certificate examination and is required to study and be examined in English Prose and Composition (Section A, English Prose with Text, and Section B, Composition in English or in a Modern Indian Language) and Physics (two papers and a practical), Chemistry (two papers and a practical), and Mathematics (two papers), or Geology or Biology (two papers and a practical). For a pass, a candidate must obtain 33 per cent of the total marks in Mathematics, 33 per cent in each paper and in each practical examination in other subjects and 30 per cent in English Prose and Composition. Candidates who obtain 60 per cent in the aggregate are placed in the First Class and those obtaining 45 per cent in the Second Class.

(ii) *Bachelor of Science (B.Sc.)*.—The course extends over two years subsequent to passing the Intermediate Examination in Science. Candidates may take any two of the following subjects Mathematics, Physics, Chemistry, Botany, Geology, Zoology,

Animal Physiology, Anatomy and Embryology, Microbiology—one principal subject and other subsidiary. At the examination, papers are set as follows:—

<i>Subject</i>	<i>As a Subsidiary Subject</i>	<i>As a Principal Subject.</i>
Mathematics ...	4 papers of three hours each.	8 papers of three hours each.
Physics ...	2 papers and 2 practical examinations*	4 papers and 4 practical examinations.
Chemistry ...	2 papers and 2 days' practical examinations*	4 papers and 3 days' practical examination.
Botany ...	2 papers and 2 practical examinations*	4 papers and 4 practical examinations.
Geology ...	2 papers and 2 practical examinations	4 papers and 3 practical examinations.
Zoology ...	2 papers and 2 practical examinations*	4 papers and 4 practical examinations.
Animal Physiology	2 papers and 2 practical examinations	3 papers and 3 practical examinations and an oral examination.
Anatomy and Embryology,	2 papers and 2 practical examinations	3 papers, 3 practical examinations and an oral examination.
Microbiology ...	2 papers, 2 practical examinations and an oral examination	3 papers, 3 practical examinations and an oral examination.
Experimental Phycology.	(As a principal subject only.)	3 papers and 3 practical examinations.
Geography ...	2 papers and 2 practical examinations	(As a subsidiary subjects only.)

For a pass, candidates must obtain in each subject 33 per cent in the papers taken together, and in the practical examination taken together, or in Mathematics in all the papers taken together. Successful candidates who obtain 60 per cent in their principal subject and 45 per cent in the subsidiary subject are placed in the First Class and those who obtain 48 per cent in the Principal subject and 40 per cent in the subsidiary subject are placed in the Second Class. Successful candidates who obtain 48 per cent of the marks in the principal and the subsidiary subjects taken together are placed in the Second Class

* Same as for the B A. (Hons.) Examination.

if they obtain 45 per cent in the Principal subject, and those who obtain 60 per cent of the total marks in the principal and subsidiary subject taken together are placed in the First Class, if they obtain 5 per cent in the principal subject. A candidate who secures 66 per cent in the principal subject is declared to have passed with distinction.

(iii) *Master of Science (M.Sc.)*.—Bachelor of Science of this or of certain other recognised Universities are admitted to the course of study for M.Sc. Degree extending over two years. Candidates must after one of the following branches: Mathematics, Physics, Chemistry, Botany, Zoology, Geology and Animal Physiology.

The M.Sc. Degree may be taken by research alone or by written examination and practical (except in Mathematics) or by research and examination combined. A candidate may submit a thesis which may be accepted in lieu of the whole or a part of the examination.

The examination in Mathematics is the same as at the M.A. Examination. There are four papers and four practical examinations in Physics, four papers and at least four days' practical examinations in Chemistry and three papers and at least three days' practical examination in each of the subjects Botany, Zoology and Geology.

Successful candidates are divided into those who pass and those who pass with distinction.

III. Commerce

(i) *Intermediate Examination*.—The course of study extends over two academic years subsequent to passing the Matriculation Examination, at the end of the first of which candidates are examined by Colleges in the subjects prescribed by the University for the first two terms in Commerce. At the Intermediate Examination Candidates will be examined in the following subjects:—

Group A

1. English—one paper, 100 marks.
2. Commercial Correspondence and Composition—One paper, 100 marks.

3. Composition in a Modern Indian Language or French or German—one paper, 50 marks. (Marathi, Gujarati, Hindi, Sindhi, Urdu and Kannada are the recognized Modern Indian Languages).

or

An additional paper in English—50 marks.

Group B

4. Elements of Economics—one paper, 100 marks.

5. Forms of Economic Organization (with special reference to India and the United Kingdom), one paper, 100 marks.

Group C

6. Accountancy—one paper, 100 marks.

7. Either Secretarial Practice or Insurance or Mathematics—one paper, 100 marks.

The minimum for a pass is 33 per cent of full marks in each subject and 40 per cent in each group. A candidate obtaining 60 per cent of the total marks obtainable will be placed in the First Class and those obtaining 50 per cent in the Second Class.

(ii) *Bachelor of Commerce (B.Com.)* :—The course extends over two years subsequent to passing the Intermediate Examination in Commerce of this University. Candidates will be examined in the following subjects :—

Group 'A'—

1. Principles of Economics—Two papers of 100 marks each.

2. Modern Economic Development—One paper, 100 marks.

Group 'B'—

3. English—One paper, 100 marks.

4. Business Organization—One paper, 100 marks.

5. Mercantile Law—One paper, 100 marks.

6. Statistics and Scientific Methods—One paper, 100 marks.

Group 'C'—

7. Any one Special subject of the following—

Three papers—100 marks each.

1. Accounting and Auditing.
2. Actuarial Science.
3. Banking.
4. Economics of Cotton.
5. Public Finance and Administration.
6. Statistics.
7. Transport.
8. Co-operation.

N.B.—Candidate can choose Actuarial Science or Statistics only if they have taken Mathematics as their optional subject at the Inter-Commerce Examination.

To pass the examination the candidate must obtain 33 per cent of the full marks in each subject and 40 per cent in each group. Those of the successful candidates who obtain 60 per cent of the total marks obtainable will be placed in the First Class and those obtaining 50 per cent in the Second Class.

(iii) *Master of Commerce (M.Com.)*.—Any person who has taken the degree of the Bachelor of Commerce of this University or of any other University recognized by this University as equivalent thereto may, after he has worked under the guidance of a recognized University teacher for at least two years subsequent to his passing the Bachelor of Commerce Examination, be admitted to the examination for the degree of Master of Commerce in accordance with the relevant regulations.

Candidates may appear either for a written examination of 8 papers each of 3 hours' duration and carrying 100 marks, or may submit a thesis on a subject dealt with in any of the papers prescribed, in lieu of the whole of the written examination. The written examination shall consist of the following subjects:—

Group A.—Compulsory subjects—

- | | |
|--|-----------------------|
| 1. Public Economics | One paper, 100 marks. |
| 2. Organized Markets | One paper, 100 marks. |
| 3. Organization of Trade and Transport | One paper, 100 marks. |
| 4. Corporation Finance | One paper, 100 marks. |

Group B.—Voluntary subjects—

- (a) Actuarial Science—4 papers, 100 marks each, or any two of the following sub-groups—
- (b) (i) Economics of Agriculture One paper, 100 marks.
(ii) Co-operation and Rural Development One paper, 100 marks.
- (c) (i) Organization of Industries One paper, 100 marks.
(ii) Labour Administration One paper, 100 marks.
- (d) (i) Foreign Exchanges One paper, 100 marks.
(ii) International Banking One paper, 100 marks.

To pass the examination candidates must obtain 30 per cent of the full marks in each paper and 40 per cent in each group.

IV. Teaching

(i) *Diploma in Teaching.*—A candidate who has passed the Matriculation Examination of the University of Bombay or an examination recognized as equivalent to it and has obtained subsequently teaching experience for a period of not less than 3 years, is allowed to appear for the examination for the Diploma in Teaching, provided he has kept two terms (each of 65 days) at a College affiliated to this University for the said Diploma and has completed the prescribed course of practical work to the satisfaction of the head of his College. Candidates who have passed the Inter Arts, Inter Science or Inter Commerce can appear for the said Diploma after keeping two terms. The examination consists of two parts.

Part I (Four papers)—Written examination.

Part II (Two lessons)—Practical examination.

PART I.

Paper I—Elementary Principles of Education and Psychology.

Paper II—Special Methods.

Paper III—General Methods, School Hygiene and School Administration.

Paper IV—An outline on Twentieth Century developments in Indian Education and Educational Administration in the Province of Bombay.

In the papers on Methods—General and Special—candidates shall answer questions on the Methods pertaining to the subjects selected by them for Part II.

PART II

Practical Examination

In part II of the examination the teaching ability of candidates shall be judged by a test in two lessons, in any two out of three school subjects selected by the candidates for practice lessons. They will be tested in their practical skill in class management as well as in class teaching. They will be required to produce for inspection by the examiners:—

- (a) A diary of demonstration and directed lessons observed ;
- (b) A journal containing notes of lessons given, together with the observations on these lessons by the Master of Method.

The total marks for the examination shall be 400 for Theory and 200 for Practical.

A candidate obtaining 40 per cent of the total marks—separately in Part I and in Part II is declared to have passed the examination.

A candidate obtaining 65 per cent in the aggregate and not less than 50 per cent in Part II is declared to have passed with distinction.

(ii) *Bachelor of Teaching*.—Graduates of this or of any other recognized University who have (i) kept two terms (the first and the second) of lectures on the Theory and Practice of Education in a Training College affiliated to this University for the purposes of the B. T. Degree, and (ii) completed a course of practical works, extending over two school terms to the satisfaction of the Head of the Institution in which the candidate is studying. The examination is held in two parts : Part I—Written Examination, and Part II—Practical Examination.

Written Examination

1. *Theory of Education*.—Psychological.
 - (i) Educational Psychology.
 - (ii) Experimental Psychology and Statistical Methods.
2. *Theory of Education*.—Philosophical.
 - (i) Principles of Education.
 - (ii) General Method.

3. *Practice of Education*.—(Special Methods).

Any two of the following:—

- (i) Method in English.
- (ii) Method in Modern Indian Languages.
- (iii) Method in Sanskrit.
- (iv) Method in Persian.
- (v) Method in French.
- (vi) Method in History.
- (vii) Method in Geography.
- (viii) Method in Mathematics.
- (ix) Method in Science.

4. *Educational Administration*.—

- (i) School Organization and Management.
- (ii) School Hygiene and Educational administration.

In part II of the Examination, candidates will be tested in their *practical skill in class management* and class teaching. Each candidate will be required to give lessons in two special subjects selected by him under Part I.

The total number of marks for the Part I examination will be 500, and for Part II 300.

To pass the Examination in either Part I or Part II a candidate must obtain not less than 40 per cent of the total number of marks in each Part.

V. Agriculture

(i) First year Examination in Science (Agriculture) : Candidates will be examined in (1) Agriculture (2 papers and 2 practicals), (2) soils (1 paper and a practical), (3) Chemistry (2 papers and a practical), (4) Botany (2 papers and a practical), (5) Zoology (1 paper and a practical), (6) Mathematics and Physics (2 papers and a practical). In order to pass candidates must obtain 40 per cent of the total number of marks obtainable, 40 per cent of the marks obtainable in Agriculture papers and practicals separately, and 33 per cent in the remaining subjects, papers and practicals separately.

(ii) Second Year Examination in Science (Agriculture) : Candidates will be examined in (1) Agriculture (3 papers and a practical),

(2) Agricultural Chemistry (2 papers and a practical) (3) Agricultural Botany (1 paper and a practical), (4) Entomology (1 paper and a practical), (5) General Bacteriology (1 paper and a practical). In order to pass candidates must obtain 40 per cent of the total marks obtainable, 40 per cent of the total marks obtainable in Agriculture, papers and practical separately and 33 per cent in the remaining subjects, papers and practicals separately.

(iii) *Bachelor of Science (Agriculture)*: Candidates will be examined in the following subjects: (1) Agriculture (2 papers and 2 practicals), (2) Veterinary Science (1 paper and a practical), (3) Plant Pathology (1 paper and a practical), (4) Horticulture (1 paper and a practical), (5) Agricultural Economics (1 paper and a practical), (6) Agricultural Engineering (1 paper and a practical). In order to pass candidates must obtain 40 per cent of the total number of marks obtainable, 40 per cent of the marks obtainable in Agriculture and 33 per cent in the remaining subjects, percentages to be obtained separately in the papers and practicals in each subject. Candidates who obtain 50 per cent of the total on the aggregate of three years are considered to have passed with Honours. Those who obtain 60 per cent of the total the aggregate of three years are declared to have passed in the first class.

(iv) *Master of Science (Agriculture)*.—Each candidate for this Degree must be a graduate in Agriculture of this University of not less than 2 years' standing and must have been engaged in the practice of Agricultural work or research in connection with Agriculture for a period of at least 2 years' after receiving the Degree in Agriculture. Each candidate must submit a report of work or research of an original character in the Agricultural field subsequent to his graduation. The M.Sc. Degree may be taken (a) by research, (b) by written examination and practical work, or by research and examination combined.

VI. ENGINEERING

A Civil Engineering

A candidate for the degree of Bachelor of Engineering must produce a certificate showing that he has passed the Intermediate Examination in Science with Physics, Chemistry and Mathematics of Gujarat University or any examination or examinations recognised as equivalent to this examination.

A candidate will be required to pass three examinations :

1. First Examination in Engineering.
2. Second Examination in Civil Engineering.
3. Examination for the degree of Bachelor of Engineering (Civil).

The F. E course extends over one year.

The S. E. (Civil) Examination course extends over one year after passing the F. E. Examination.

The B.E. (Civil) Degree Examination course extends over one year after passing the S.E. (Civil) Examination.

The following is the scheme of instructions and examination for the First Examination in Engineering, Second Examination in Engineering (Civil) and for the Examination in the degree of Bachelor of Engineering (Civil) :—

First Examination in Engineering (Civil)

1. C.M.E. Mathematics I. (One paper, 100 marks 3 hours).
2. C.M.E. Mathematics II. (One paper, 100 marks 3 hours).
3. C.M.E. Applied Mechanics (One paper, 100 marks 3 hours).
4. C.M.E. Machine Drawing (One paper, 100 marks 4 hours; Term work 50 marks).
5. C.M.E. Surveying I. (One paper, 100 marks 3 hours ; Term work 50 Marks ; Pract. Exam. 25 marks.)
6. C.M.E. Electrical Engineering I. (One paper 100 marks 3 hours).
7. C.M.E. Heat Engines I. (One paper, 100 marks 3 hours.)
8. C.M.E. Workshop Practice (Prac. Exam. 100 marks; Term work 50 marks).
9. C.M.E. Engineering Materials and Elementary Construction. (One paper, 100 marks 3 hours).

Second Examination in Engineering (Civil)

10. C.M.E. Mathematics III (One paper, 100 marks 3 hours).
11. C.M.E. Hydraulics and Hydraulics Machinery (One paper, 100 marks) ; (Term Work 25 marks).

12. C.M.E. Materials and Structure I. (One paper, 100 marks 3 hours).
13. C.M.E. Testing of Materials (College Certificate) Term Work 25 marks.
14. C. Theory of Structures I. (One paper, 100 marks 3 hours).
15. C. Heat Engines and Electrical Technology (One paper, 100 marks, 3 hours ; Term Work 25 marks each).
16. C. Surveying II. (One paper, 100 marks, 3 hours; Prac. Exam. 50 marks, Term Work 25 marks).
17. C. Construction I. (One paper, 100 marks 3 hours).
18. C. Drawing and Design, (One paper, 100 marks 4 hours; Term Work 50 marks; Sketching and Oral 50 marks.)
19. C. Irrigation and Storage (One paper, 100 marks 3 hours).

Degree Examination in Engineering (Civil)

20. C.M.E. Engineering Economics (One paper, 100 marks 3 hours).
21. C. Theory of Structures II. (One paper, 100 marks 3 hours).
22. C. Structural Drawing and Design (One paper, 100 marks 4 hours, Term Work 100 marks ; Sketching and Oral 50 marks.)
23. C. Roads and Town Planning (One paper, 100 marks 3 hours).
24. C. Water Supply and Sanitary Engineering (One paper, 100 marks 3 hours.)
25. C. Construction II (One paper, 100 marks 3 hours).
26. C. Project Drawing (Term Work 150 marks; Sketching and Oral 50 marks.)
27. C. Engineering Geology, (One paper, 100 marks 3 hours ; Practical Examination 50 marks.)
28. C. Railways and Bridges (One paper, 100 marks 3 hours.)
29. C. Quantity Surveying and Costing (Term Work 100 marks, (College Certificate) and oral 50 marks.)

To pass an examination in the Faculty of Engineering a candidate must obtain 40 per cent of the full marks in each subject. Where there is a practical examination also, a candidate must obtain 40 per cent separately in the written and in the practical examination. Where 'Term Work' is specifically mentioned separately as in Drawing subjects, a candidate must obtain a minimum of 40 per cent separately in the 'Term Work' also.

In addition, a candidate must obtain a minimum of 45 per cent of the total marks obtainable for being declared to have passed the examination.

Those of the candidates who secure 45 per cent or more marks in aggregate and have passed an examination at one sitting will be declared to have passed the examination in the Second Class.

Those of the candidates who secure 60 per cent or more marks in aggregate and have passed an examination at one sitting will be declared to have passed the examination in the First Class.

Those of the candidates who secure 66 per cent or more marks in aggregate and have passed an examination at one sitting will be declared to have passed the examination in the First Class with Distinction.

B. Mechanical Engineering

A candidate for the degree of Bachelor of Engineering must produce a Certificate showing that he has passed the Intermediate Examination in Science with Physics, Chemistry and Mathematics of the Gujarat University or any Examination or Examinations recognised as equivalent to this Examination.

A candidate will be required to pass three examinations :—

1. First Examination in Engineering.
2. Second Examination in Engineering (Mech. and Elect.)
3. Examination for the degree of Bachelor of Engineering (Mechanical).

The F.E. Course extends over one year.

The S. E. (Mech. and Elect.) Course extends over one year after passing the F.E. Examination.

The B.E. (Mech.) Degree Examination Course extends over one year after passing the S.E. (Mech and Elect.) Examination.

The following is the scheme of instruction and examination for the First Examination in Engineering, Second Examination in Engineering (Mech. and Elect.) and for the Examination for the degree of Bachelor of Engineering (Mechanical) :—

PART II MECHANICAL ENGINEERING COURSE

(A) F.E.

Same as for Civil.

(B) S.E.

- | | |
|--|---|
| 10. C.M.E. Mathematics III | One paper 100 marks 3 hours. |
| 11. C.M.E. Hydraulics & Hydraulic Machinery. | One paper 100 marks 3 hours.
Term Work 25 marks. |
| 12. C.M.E. Materials & Structures I | One paper, 100 marks.
3 hours |
| 13. C.M.E. Testing of Materials | College certificate Term Work 25 marks. |
| 14. M.E. Heat Engines II | One paper, 100 marks 3 hours.
Prac. Exam. 50 marks. Term Work 25 marks. |
| 15. M.E. Electrical Engineering II. | One paper, 100 marks 3 hours.
Prac. Exam. 50 marks. Term Work 25 marks. |
| 16. M.E. Machine Design and Drawing. | One paper, 100 marks 4 hours.
Term Work 50 marks. Prac. Oral & Sketching 50 marks. |
| 17. Mechanical Technology and Practice I. | Prac. 100 marks.
Term Work 50 marks. |
| 18. M.E. Theory of Machines I. | One paper, 100 marks 3 hours. |
| 19. M.E. Engineering Economics. | One paper, 100 marks 3 hours. |

(C) B.E.

- | | |
|---|---|
| 20. M.E. Materials & Structure III. | One paper, 100 marks 3 hours. |
| 21. M.E. Electrical Technology III. | One paper, 100 marks 3 hours. |
| 22. M. Metallurgy | One paper, 100 marks 3 hours.
Term Work 25 marks. |
| 23. M. Mechanical Technology and Practice II. | One paper, 100 marks 3 hours.
Prac. Exam. 100 marks. Term Work 50 marks. |

- | | | |
|--|---------------------------|----------|
| 24. M. Heat Engines III | One paper, 100 marks | 3 hours. |
| 25. M. Heat Engines IV | One paper, 100 marks | 3 hours. |
| | Prac. Exam. 50 | |
| | marks. Term Work | |
| | 25 marks. | |
| 26. M. Theory of Machines II | One paper, 100 marks | 3 hours. |
| 27. M. Machine Design | One paper, 100 marks | 4 hours. |
| | Term Work 50 | |
| | marks. Oral and | |
| | Sketching 50 marks. | |
| 28. M. E. Workshop manage-
ment and Business Or-
ganisation. | One paper, 100 marks | 3 hours. |
| 29. M.E. Seminar | College certificate only. | |

To pass an examination in the Faculty of Engineering, a candidate must obtain 40 per cent of the full marks in each subject. Where there is a practical examination also, a candidate must obtain 40 per cent separately in the written and in the practical examinations. Where term work is specifically mentioned separately as in Drawing subjects, a candidate must obtain 40 per cent separately in the term work also.

In addition, a candidate must obtain a minimum of 45 per cent of the total marks obtainable for being declared to have passed the examination.

Those of the candidates who secure 45 per cent or more marks in the aggregate and have passed the examination at one sitting will be declared to have passed the examination in the Second Class.

Those of the candidates who secure 60 per cent or more marks in the aggregate and have passed the examination at one sitting will be declared to have passed the examination in the First Class.

Those of the candidates who secure 66 per cent or more marks in the aggregate and have passed the examination at one sitting will be declared to have passed the examination in the First Class with Distinction.

C. Electrical Engineering

A candidate for the degree of Bachelor of Engineering must produce a Certificate showing that he has passed the Inter-

mediate Examination in Science with Physics, Chemistry and Mathematics of the Gujarat University or any Examination or Examinations recognised as equivalent to this Examination.

A candidate will be required to pass three examinations :—

1. First Examination in Engineering.
2. Second Examination in Engineering (Mech. & Elect.)
3. Examination for the degree of Bachelor of Engineering (Electrical).

The F.E. Course extends over one year.

The S.E. (Mech. & Elect.) Examination Course extends over one year after passing the F.E. Examination.

The B.E. (Electrical) Degree Examination Course extends over one year after passing the S.E. (Mech. & Elect.) Examination.

The following is the scheme of instruction and examination for the First Examination in Engineering, Second Examination in Engineering (Mech. & Elect.) and for the Examination for the degree of Bachelor of Engineering (Electrical).

PART III ELECTRICAL ENGINEERING COURSE

(A) F.E.

Same as for Civil

(B) S.E.

Same as for Mechanical

(C) B.E.

- | | |
|--|---|
| 20. M.E. Materials and Structures II | One paper, 100 marks 3 hours |
| 21. M.E. Electrical Power I | One paper, 100 marks 3 hours. |
| 22. E. Electrical Power II | One paper, 100 marks 3 hours. |
| 23. E. Electric Measurements and Inst. | One paper, 100 marks 3 hours. |
| 24. E. Electrical Engineering III | One paper, 100 marks 3 hours.
Prac. Exam. 50 marks.
Term Work 50 marks. |

- | | |
|--|---|
| 25. E. Applied Electronics | One paper, 100 marks 3 hours.
Prac. Exam. 50 marks.
Term Work 25 marks. |
| 26. E. Applied Thermodynamics | One paper, 100 marks 3 hours. |
| 27. E. Electrical Design and Project. | One paper, 100 marks 4 hours.
Term Work 50 marks.
<i>Oral & Sketching 50 marks.</i> |
| 28. F. Workshop management and Business Organisation | One paper, 100 marks 3 hours. |
| 29. E. Seminar | College Certificate only. |

To pass an examination in the Faculty of Engineering, a candidate must obtain 40 per cent of the full marks in each subject. Where there is a practical examination also, a candidate must obtain 40 per cent separately in the written and in the practical examinations. Where term work is specifically mentioned separately as in Drawing subjects, a candidate must obtain 40 per cent separately in the Term Work also.

In addition, a candidate must obtain a minimum of 45 per cent of the total marks obtainable for being declared to have passed the examination.

Those of the candidates who secure 45 per cent or more marks in aggregate and have passed the examination at one sitting will be declared to have passed the examination in the Second Class.

Those of the candidates who secure 60 per cent or more marks in aggregate and have passed the examination at one sitting will be declared to have passed the examination in the First Class.

Those of the candidates who secure 66 per cent or more marks in aggregate and have passed the examination at one sitting will be declared to have passed the examination in the First Class.

Master of Engineering Examination (M.E.)

A candidate who has passed the B.E. Examination of this University and has worked for at least three terms in a College under the guidance of a University Teacher is admitted to the examination in the Special Branch in which he has taken the B.E. Degree examination (four terms in a branch other than the one in which he has taken the B.E. Degree examination). The examination will consist of:

- (1) Written Examination of four papers.
- (2) Practical Examination or a dissertation in lieu of the practical examination.

Practical Examination will consist of both practical and oral tests extended over a period of not less than 12 hours.

The dissertation may consist of a report of any research work done by the candidate or a comprehensive and critical review of any recent development of the subject or a detailed report of any important design or development work that the candidate has executed on his own responsibility.

Each of the papers, shall carry 100 marks and the practical examination or dissertation shall carry 400 marks.

Law

Candidates for the degree of LL.B. must have passed the Intermediate Arts or the Intermediate Commerce Examination of this University or the Intermediate Arts or Intermediate Commerce Examination of any other University or Board of Intermediate Education recognised as equivalent to the corresponding examination of this University and will be required to pass three examinations, the first to be called the "Law Preliminary Examination" the second to be called the "1st Examination for the Degree of LL.B." and the third to be called the "2nd Examination for the Degree of LL.B."

Candidates who have passed the Bachelor's Degree Examination of this University in the Faculties of Arts or Commerce or of any other University recognised as equivalent thereto, will not be required to pass the Law Preliminary Examination, and will be entitled to enter upon the course for the 1st examination for the Degree of LL.B.

Candidates who have passed the Bachelor's Degree Examination of this University in Agriculture, Medicine or Engineering or in any other Faculty except Arts or Commerce or of any other University recognised as equivalent thereto will be eligible for admission to the Law Course but will be required to pass the Law Preliminary Examination as mentioned above.

(1) Law Preliminary Examination Course

No candidate will be admitted to this examination unless he shall have passed the Intermediate Arts or Intermediate Commerce Examination of this University or an equivalent examination of any other University or Board of Intermediate Education or have passed the Bachelor's Degree Examination of this University in Agriculture, Medicine or Engineering or in any other Faculty except Arts or Commerce or of any other University recognised as equivalent thereto and have thereafter kept two terms in a Law or an Arts College affiliated to this University for the purposes of teaching the prescribed course.

Candidates will be required to answer the following five papers, each carrying 100 marks and of three hours' duration :—

Paper I—English Texts—Prose and Poetry.

Paper II—English—Essay, Precis and Composition.

Paper III—Outlines of Social, Economic and Constitutional History of India from 1773 to the 26th January, 1950.

Paper IV—History and Development of Social Institutions.

Paper V—Politics.

To pass the examination the candidate must obtain one-third of the full marks in each paper. Those obtaining 45 per cent or more in the aggregate shall be declared to have passed the examination in the Second Class. Those obtaining 60 per cent or more in the aggregate shall be declared to have passed the examination in the First Class.

(2) First LL.B. Examination Course

No candidate will be admitted to this examination unless he shall have passed the Law Preliminary Examination of this University or of any other University recognised by this University as equivalent thereto, or the Bachelor's Degree Examination of this University in the Faculties of Arts or Commerce or of any other University recognised by this University as equivalent thereto, and have thereafter kept two terms in a Law College, affiliated to this University.

Candidates will be required to answer the following five papers, each carrying 100 marks and of three hours' duration :—

Paper I—Law of Crimes with special reference to the Indian Penal Code.

Paper II—The Law of Torts.

Paper III—Principles of the Law of Contract with Special reference to the first 75 sections of the Indian Contract Act.

and

The Principles of the Law of Indemnity, Bailments Surety, Agency, Sale of Goods, Partnership and Negotiable Instruments.

Paper IV—Elements of Constitutional Law.

Paper V—Indian Constitution.

(3) Second LL.B. Examination Course

No candidate will be admitted to the examination unless he shall have passed the First Examination for the Degree of LL.B. in this University and after passing the said examination, shall have kept two terms in a Law College affiliated to this University.

Candidates will be required to answer the following six papers, each carrying 100 marks and of three hours' duration :—

Paper I—Hindu Law.

Paper II—Mohammadan Law and the Indian Succession Act.

Paper III—Law of Property, Easements and Registration Act.

Paper IV—Equity, Trust and Specific Relief.

Paper V—Elements of Public International Law and Jurisprudence.

Paper VI—Conflict of Laws (Books to be recommended.)

To pass each of the First and Second LL.B. Examinations, the candidate must (a) obtain one-third of the full marks in each paper and (b) obtain one-half of the total marks obtainable. Those of the successful candidates who obtain two-thirds or more of the total marks obtainable will be placed in the First Class.

Master of Laws (LL.M.)

Admission to the courses of study for this Degree is granted to Law Graduates of this or of certain other recognised Universities and the course extends over two academic years in the case of students passing the Second LL.B. Examination under the old rules and three academic years in the case of students passing the Second LL.B. Examination under the new rules. Every candidate for the Degree of LL.M. is required (1) to register himself as a Post-graduate students of

the University (2) to get himself enrolled as a regular student of a law College affiliated to the University and (3) to report himself daily to the Principal of the College. Candidates are required to study and be examined in any one of the following four branches :—

Branch I—

- (1) Jurisprudence (1 paper),
- (2) Roman Law (1 paper).
- (3) International Law Public and Private (1 paper).
- (4) Principles of Legislation (1 paper).
- (5) Constitutional Law (British and Indian) (1 paper).
- (6) Essay (1 paper).

Branch II—

- (1) Hindu Law (3 papers) or Muhammadan Law (3 papers).
- (2) Testamentary and Intestate Succession (excluding Hindu and Mohammadan Law) (1 paper).
- (3) Marriage, Divorce and Guardianship (excluding Hindu and Mohammadan Law) (1 paper).
- (4) Essay on Hindu or Mohammadan Law (1 paper).

Branch III—

- (1) Real property, etc., (2 papers).
- (2) Principles of Equity with special reference to the Law of Trusts and Specific Relief (1 paper).
- (3) The Law of Easements and Prescription (1 paper).
- (4) Customary and Statute Law relating to Land Tenure in British India (1 paper).
- (5) Essay (1 paper).

Branch IV—

- (1) The Law of Contract (including sale of goods) (1 paper).
- (2) Companies and Insolvency (1 paper).
- (3) Mercantile and Maritime Law (1 paper).
- (4) The Law of Torts (1 paper).
- (5) Law of Crimes (1 paper).
- (6) Essay (1 paper).

The Degree of LL.M. may be taken either by written examination or by thesis.

The examination in each branch consists of six papers. To pass the examination, candidates must obtain 50 per cent in each of the papers. Those who obtain 66 per cent of the aggregate are placed in the First Class.

**DEGREES OF BACHELOR OF MEDICINE AND
BACHELOR OF SURGERY****(M.B., B.S.)****1.—Admission to the Medical Course**

No candidate shall be allowed to begin the medical curriculum proper until:—

(i) He has completed the age of 17 years at the time of admission or will complete this age within four months of his admission to the College.

(ii) He has passed:—

(a) The Intermediate Examination in the Medical group of an Indian University which includes a practical test.

OR

(b) The Intermediate Examination in Arts or Science of an Indian University with Physics, Chemistry and Biology and which shall include a practical test in each of these subjects.

OR

(c) B.Sc. Examination of an Indian University if Physics, Chemistry and Biology have been taken in the Intermediate Examination with a practical test in these subjects.

OR

(d) The Intermediate Examination held by the Boards of Higher Secondary School and Intermediate Education with Physics, Chemistry and Biology which includes a practical test in each of these subjects recognised by Government.

OR

(e) Any other examination which in scope and standard is found equivalent to the Intermediate Science Examination of an Indian University taking Physics, Chemistry and Biology including a practical test in each of these subjects.

II.—The Medical Curriculum

With regard to the course of study and the examinations which persons desirous of qualifying for the medical profession shall go through in order that they may become possessed of the knowledge and skill requisite for the efficient practice of

medicine, surgery and midwifery, the Council recommends as follows :—

Period of Study

1. That every student should undergo a period of certified study extending over not less than $5\frac{1}{2}$ academic years between the date of commencement of his study of the subjects comprising the medical curriculum and the date of completion of the examination and subsequent training ; provided that the last 4 years in case of the course containing $5\frac{1}{2}$ years (2 years Pre-Clin. *plus* 3 years Clin. *plus* $\frac{1}{2}$ year post-exam. training), the period must have been spent in study and training in the clinical group of subjects, which shall ordinarily be continuous.

2. That the $5\frac{1}{2}$ years (2 years pre-clin. *plus* 3 years. Clin. *plus* $\frac{1}{2}$ year post-exam. training) course should be occupied in the study of the professional scientific subjects with an introduction to clinical methods, and that no student should be certified as attending classes in the clinical group of subjects until he has satisfied the Examiners that he has a competent knowledge of the subjects of these periods.

3. That throughout the whole period of study the attention of the student should be directed by his teachers to the importance of the preventive aspects of medicine, and of measures for preservation of positive health.

In every course of professional study, and in the examinations, the following subjects should be included—

III.—Pre-Clinical Subjects

(In the Teaching of these Subjects Stress should be laid on Fundamental and Basic Principles of the Science)

Details are to be avoided—

1. Human anatomy and Physiology.
2. Introduction to Pharmacology.

IV.—Clinical Subjects

(N.B.)—Throughout the whole period of study the attention of the student should be directed by the teachers of this subject to the importance of its preventive aspects. Emphasis should be laid more on practical training than didactic lectures.

2. The normal reactions of the body to injury and infection, as introduction to general pathology and bacteriology.

3. Pathology and Bacteriology.

4. Pharmacology including Pharmaco-therapeutics and Toxicology.

5. Forensic Medicine—This course should include instruction in the duties which devolve upon practitioners in their relation to the State, and on the generally recognised rules of medical ethics.

6. Preventive Medicine and Social Medicine.

7. Medicine.

8. Surgery.

9. Midwifery, Diseases of women and infant Hygiene.

Post-Examination training:—

12 months training after final examination. Work to be done under a medical officer or practitioner in an institution recognised by the University or Medical Council of India as a teacher for the purpose. Three months of this internship to be in public health work preferably in rural areas, provided that in the case of Universities which enjoin 2 years pre-clinical course, it should be 6 months, 2 months of which should be spent in public health work preferably in rural areas.

1. First Professional Examination.—After 2 years of study in (1) Anatomy, (2) Physiology and (3) Organic Chemistry (for those who had not had this subject in the Intermediate Science course, Medical group).

Pass Marks—50 per cent in written and oral together *
50 per cent in practical.

II. 2nd Professional Examination.—After at least 1½ academic years subsequent to 1st Professional Examination in (1) Pathology and Bacteriology, (2) Pharmacology including Pharmaco-therapeutics and Toxicology, (3) Forensic Medicine.

Pass Marks—50 per cent in written and Oral together *
50 per cent in practical.

* It has been decided by the University that the Oral marks should be added to the Practical.

III. Third Professional or Final Examination.—Three academic years after 1st Professional examination and not less than six months after the second Professional examination.

In (1) Medicine including preventive and social medicine and therapeutics, (2) Surgery including E.N. & T. & Ophthalmology, and (3) Midwifery and Gynaecology, all including applied Pathology.

Pass Marks—50 per cent in written and oral tests together * 50 per cent in clinical and practical work. Provided the candidate secures 50 per cent of the marks allotted to the clinical part of the subject.

Periodical examination results should be taken into account at all examinations.—The question of number of periodical examination be left to the Universities for consideration. The Universities should ask Examiners to allot for certified work done in classes as assessed by teachers, a definite percentage of marks, not exceeding ten allotted to practical or clinical test as the case may be.

(ii) *Degree of Doctor of Medicine (M.D.).*—The examination for this Degree is open to Bachelors of Medicine and Bachelors of Surgery of his or of any other recognized University and to Licentiates of Medicine and Surgery of this University only, who have been engaged in continuous practice of the Medical profession for at least five years, one of which must be spent in the post-graduate study of the particular branch in which he offers the examination, at a recognised Hospital or Institute. The period may be reduced under special conditions.

Candidates will be examined in one of the following branches :

The examination in Branches I to IV will consist of—

Branch I—Medicine and diseases of Children

(A) One paper in Medicine, including Mental diseases, Medical Applied Anatomy and Diseases of Children.

(B) One paper in Pathology (common to Branches I and II).

It has been decided by the University that the Oral marks should be added to the Practical.

- (C) One paper in General Medicine, (common to all the four Branches).
- (D) An Essay on one of the two subjects in Medicine including the History of Medicine.
- (E) Clinical, oral and practical examination.

Branch II—Pathology

- (A) One paper in Pathology, including Bacteriology.
- (B) One paper in Pathology (common to Branches I and II)
- (C) One paper in General Medicine, (common to all the four Branches).
- (D) An essay on one of the two subjects in Pathology including History of Pathology and Bacteriology.
- (E) Practical and Oral Examinations.

Branch III—Midwifery (Including diseases of infants and Gynaecology)

- (A) One paper in Midwifery and diseases of New-born.
- (B) One paper in Gynaecology. Paper (A) and (B) shall each include one question on Pathology.
- (C) One paper in General Medicine, (common to all the four Branches).
- (D) An essay on one of the two subjects in Midwifery and Diseases of Women.
- (E) A clinical, and oral and practical examination.

Branch IV—Pharmacology

- (A) One paper on the theoretical and experimental aspects of Pharmacology and Toxicology (including Bio-Assay, Chemical Pharmacology, etc.).
- (B) One paper in Applied Pharmacology, and Therapeutics (including Physiotherapeutics, immunotherapeutics).
The paper may include questions on general experimental and functional pathology.
- (C) One paper in General Medicine (common to all the four Branches).
- (D) An essay on one of the two subjects in Pharmacology and Therapeutics including the history of the subject.
- (E) Clinical, oral and practical examinations.

A candidate may submit a thesis embodying the results of

his own independent research in the branch in which he appears. The thesis may exempt him from a part or the whole of the written examination only.

The Examination will report whether the candidates have failed or passed or passed with distinction.

A New course in M.D. has been introduced with effect from 1st June 1950 and the M.D. Degree can now be taken in the following six branches :—

- I. Medicine and Therapeutics.
- II. Pathology and Bacteriology.
- III. Obstetrics, Gynaecology, and Diseases of Infancy.
- IV. Pharmacology.
- V. Pediatrics.
- VI. Tuberculosis.

The Examination for the Degree of M.D. (New Course) consists of two parts as under :—

Part I.—Consisting of General Medicine, General Pathology, Applied Anatomy, Applied Physiology and Applied Pharmacology. This part is common to all branches.

Part II.—Consisting of subjects of the respective speciality as detailed in the course.

The examinations for Part I and Part II of all branches are held twice a year. The examinations for Part I and Part II cannot be taken by any candidate concurrently.

The course is now of three years' duration. The course for Part I extends over one year and the course for Part II extends over two years. The Examination for Part I in the Branches I, III, V and VI shall consist of three papers and branches II and IV shall consist of two papers. The examination for Part II in all the branches consists of four papers and a clinical practical and oral examination.

(iii) *Degree of Master of Surgery.*—The conditions of admission to this examination are the same as for the M.D. Examination. Candidates will be examined in Surgery (two papers) Pathology including Bacteriology and Surgical Anatomy (one paper), an essay on one of the two subjects in Surgery including the History of Surgery (one paper). There will also be a Clinical

Examination with operations on the cadaver, and an oral and practical examination with examination of Pathological specimens and X-ray Skiagrams. The Examiners will report whether a candidate has passed or failed or has passed with distinction.

A thesis may be submitted on the same conditions as at the M. D. Examination.

New course in M.S. has been introduced from 1st June 1950. The M.S. Degree can now be taken in the following four branches :—

- I. General Surgery.
- II. Oto-rhino-laryngology.
- III. Orthopaedics.
- IV. Ophthalmology.

The Examination for the Degree of M.S. (New Course) consists of two parts as under—

Part I.—Consisting of General Surgery, General Pathology, Applied Anatomy, Applied Physiology and Applied Pharmacology.

This part is common to all branches.

Part II.—Consisting of subjects of the respective speciality as detailed in the course.

The examinations for Part I and Part II of all branches are held twice a year. The Examinations for Part I and Part II cannot be taken by any candidate concurrently.

The course is now of three years' duration. The course for Part I extends over one year and the course for Part II extends over two years, the examination for Part I in the different Branches shall consist of three papers. The examination for Part II in all the branches consists of four papers and a clinical, practical and oral examination.

(iv) *Bachelor of Pharmacy (B.Pharm.).*—A candidate for the B.Pharm degree must have passed the Intermediate Science B. Group Examination of this University or an examination recognised as equivalent thereto and must have completed the course laid down for the purpose in an institution recognised in this

behalf and must further put in 1000 hours of dispensing as apprentice in a recognised Hospital or Shop.

The course of study for the Degree shall be of five terms' duration.

The scheme of the examination is as under :—

Subjects	Papers 3 hrs. each.	Practicals 3 hrs. each.
I. (a) Physiology ... ..	...	...
(b) Biochemistry ... ..	...	...
(c) Pharmacology ... ..	...	1
(d) Toxicology	1	1
II. Pharmaceutics ... ..	...	...
III. Pharmaceutical Chemistry	2	3
IV. Pharmacognosy	2	2
...	1	2

Each paper of 3 hours shall carry 100 marks. Each practical of 3 hours shall carry 75 marks.

To pass the examination, a candidate must obtain at least 33 per cent of the marks in each paper, at least 33 per cent of the marks in each practical and in addition must obtain at least 40 per cent of the total number of marks assigned to the whole examination.

Successful candidates shall be awarded classes as under :—

Those obtaining 50 per cent and above but below 60 per cent of the total marks.....2nd class

Those obtaining 60 per cent and but below 70 per cent of the total marks.....1st class.

Those obtaining 70 per cent and above.....Distinction.

(i) B.Sc. and M.Sc. (Medical).

The University has introduced the courses of B.Sc. and M.Sc. (Med.) in the following branches :—

I. Human Anatomy.

II. Human Physiology.

III. Pharmacology.

IV. Pathology, Bacteriology and Parasitology.

The Examination for the B.Sc. (Med.) and M.Sc. (Med.) are held twice a year. The whole course for the B.Sc. (Med.) and M.Sc. (Med.) extends over a period of two years.

Medical Graduates who have not taken the B.Sc. Degree in the Science Faculty have to take the B.Sc. (Med.) Degree before they can be allowed to appear for the M.Sc. (Med.) Degree Examination. They do not have to keep any additional term for B.Sc. (Med.) beyond the terms kept by them for the M.B.,B.S. Course. They can appear at the B.Sc. (Med.) Degree at least one term after they have passed the M.B.B.S. Examination and they must pass the B.Sc. (Med.), Degree at least one academic term prior to their admission to the examination of the M.Sc. (Med.) Degree. A student who has in the B.Sc. Degree in the Science Faculty or the B. Pharm. Degree of this University is exempted from the B.Sc. (Med.) Degree and can directly appear for the M.Sc. (Med.) Degree.

The candidates for M.Sc. (Med.) Degree have to pass a language test in French, German or Russian, at least one term before admission to the Examination for the M.Sc. (Med.) Degree. The Examination for the B.Sc. (Med.) consists of two papers of 100 marks each and two practicals and oral carrying 200 marks.

The examination for the M.Sc. (Med.) Degree consists of three papers in all the branches carrying 100 marks each and practicals which may extend to three days and a *viva voce*, carrying 300 marks.

Fees for admission to examination

	Rs.
Intermediate Arts	30
B.A. General and Special	50
B.A. (Special) Oral, if any	—
M.A. (by Papers)	75
M.A. (by Thesis)	75
Intermediate Commerce	30
B.Com.	50
M.Com.	100
M.Com. (by Thesis)	100
M.Com. (Partly by Thesis and Partly by Papers—under the Old Rules) ...	100
B.Ed. Part I	30
B.Ed. Part II	30

Diploma in Teaching Part I	...	...	15
Diploma in Teaching Part II	...	...	10
M.Ed. (by Papers)	...	...	75
Intermediate Science (Written)	...	...	40
B.Sc. (Principal) (Written)	...	...	*50
B.Sc. (Subsidiary) (Written)	...	...	*35
M.Sc. (Maths.) (by Papers)	...	...	100
M.Sc. (Written) in subjects other than Mathematics and Agriculture...	...	...	100
M.Sc. (Partly by Thesis and Partly by Papers)	...	...	100
M.Sc. (Thesis)	...	...	100
Ph.D. (French and German Translation))	...	...	25
F.Sc. (Agriculture)	...	...	40
S.Sc. (Agriculture)	...	...	40
B.Sc. (Agriculture)	...	...	60
M.Sc. (Agriculture) by Papers and Practicals	...	...	100
M.Sc. (Agriculture) by Thesis and Papers...	...	...	100
M.Sc. (Agri.) (by Research alone)	...	...	100
F.E.	...	...	40
S.E.	...	...	40
B.E. (Civil, Mech. and Elect.) New Rules	...	...	60
M.E.	...	...	for each part
1st LL.B.	...	...	100
2nd LL.B.	...	...	40
LL.M. (by Papers)	...	...	60
LL.M. (by Thesis)	...	...	150
1st M.B.B.S.	...	...	100
2nd M.B.B.S....	...	...	40
3rd M.B.B.S.	...	...	20
B.Pharm.	...	...	75
M.D. (Old)	...	...	75
M.S. (Old)	...	...	200
M.D. (New Part I)	...	...	† 200
	...	...	100

* For both taken together Rs. 70. Rs. 100 for an M.D. who appears for a different branch and for an M.S.

† Rs. 200 for an M.D.

M.D. (New) Part II	...	...	...	200
M.S. (New) Part I	...	...	...	100
M. S. (New) Part II	...	...	...	200
B.Sc. (Medical)	...	...	...	100
M.Sc. (Medical)	...	...	...	200
Ph.D. (by Thesis)	...	...	...	100
D.Sc.	...	...	...	200

Subjects in which facilities for Post-graduate work exist.

<i>M.A.—</i>			
English Entire	...	Sanskrit-Gujarati...	Gujarati-English. Gujarati-Sanskrit.
English-Persian	...	Persian-Urdu ...	History A and B.
		Persian-English ...	History A and C.
Philosophy	...	Mathematics, A, B	Entire Gujarati.
Urdu-Persian	...	Gujarati-Persian	
Entire Psychology.			
English-Sanskrit.		Sanskrit-Ardha Magadhi.	
Politics		Ancient Indian Culture.	
<i>M.Sc.—</i>			
Chemistry		Organic, Inorganic Physics. Botany.	Mathematics A. Mathematics B.
<i>M.Sc. (Agri.)—</i>			
Plant Breeding.		Plant Pathology.	
Animal Husbandry.		Agricultural Eco- nomics.	
		Agronomy.	
Dairy Science.			
Agricultural Chemistry.			
<i>M.Com. Gr. B</i>	(b) and (c) (c) and (d).	(b) and (d)	
<i>LL.M.—</i>	Br. I. Br. II. Br. IV.		
<i>M.D.—</i>			IV. Pharmacology
I. Medicine and Therapeutics			
III. Obstetrics and Gynaecology.			
<i>M.S.—General Surgery.</i>			

GUJARAT

RECEIPTS:	Rs.	a.	p.	PAYMENTS:	Rs.	a.	p.
Cash and other Balances as	31,313	9	3	1. Establishment Charges	61,195	7	0
at 1st April 1950.				2. Examinations Charges	1,34,575	13	0
1. Government Grant— Recurring.	2,00,000	0	0	3. Travelling Allowances to Uni- versity Authorities.	19,868	1	0
2. Government Grant to- wards D.A.	...			4. Printing Stationery and Post- age.	24,497	2	6
3. Examination Fees.	1,63,870	0	0	5. Post-graduate work, Research,	—		
4. Other Fees...	41,048	0	0	etc.			
5. Income from Publications.	790	0	0	6. University Publications and			
6. Miscellaneous Receipts	891	9	0	Grants for Publications.	—		
7. Recovery of Advances	50	13	0	7. Insurance, Taxes and Law			
8. Donations	8,200	0	0	Charges.	—		

9. Government Grant— Buildings.	4,00,000	0	0	8. Physical Culture	...	...	760	10	0
				9. Miscellaneous and Contin- gencies.			24,043	1	0
				10. Library Grant—First Year	...		982	6	0
				11. Teaching and Research	...		—		
				12. Short-Term Fixed Deposits	...		5,00,375	0	0
				13. University Contributions towards Provident Fund.			—		
				14. Rent and special alterations to University Office.			12,607	8	3
				15. Capital Expenditure—Buildings			(Nil)		
				16. Capital Expenditure—Motor car.			10,320	1	0
				17. Capital Expenditure—Fur- niture and Office Equipment. Cash and other Balances as at 30th June 1951			26,736	9	9
							30,202	3	9
Total	...	8,46,163	15	3	Total	...	8,46,163	15	3

THE JAMMU AND KASHMIR UNIVERSITY

In view of the changed circumstances of the country it was considered expedient to withdraw affiliation of the Colleges and Educational Institutions of the Jammu and Kashmir State from the Universities of the Punjab, and to establish at Srinagar, the Summer Capital of the State, a Teaching and Examining University, and to provide for the affiliation of these Colleges and Institutions with that University. The University was inaugurated in November, 1948.

Officers of the University

1. The Chancellor—Sadar-i-Riyasat Shri Karan Singh Ji.
2. The Pro-Chancellor—Bakhshi Ghulam Mohammad, Prime Minister, Jammu and Kashmir State.
3. The Vice-Chancellor—Hon'ble Justice Mr. Jonki Nath Wazir, Chief Justice, High Court of Judicature, Jammu & Kashmir State.
4. The Registrar—*Vacant*.
5. The Special Officer—Kh. Ghulam Mohammad, M.A.

The Chancellor is the head of the University.

The Vice-Chancellor is an Honorary Officer elected by the Senate from among three persons recommended by a majority of the members of the Syndicate, subject to the confirmation of the Chancellor.

The Registrar acts as the Secretary of the Senate, the Syndicate, and of the Academic Board. He is a whole-time officer, and exercises such powers and performs such duties as are prescribed by the Statutes and Regulations. Subject to the sanction of the Vice-Chancellor and the Regulations in force, he controls the University Office, and conducts all important business.

Authorities of the University

1. The Senate.
2. The Syndicate.
3. The Academic Board.
4. The Faculties, and

5. Such other authorities as may be declared to be the authorities of the University.

The Senate consists of the following persons:—

Class I. Ex-Officio Members

1. The Chancellor.
2. The Pro-Chancellor.
3. The Vice-Chancellor.
4. The Minister of Education, Jammu & Kashmir State.
5. The Director of Education, Jammu & Kashmir State.
6. The Principals of Colleges in which instruction is given to Degree standard.
7. The Treasurer.
8. The Registrar.
9. The members of the Syndicate of the University, and
10. Such other *ex-officio* members as may be prescribed by the Statutes.

Class II. Other Members

1. A Judge of the High Court of Jammu and Kashmir State
2. The Director of Public Health.
3. Persons to be elected by the Head Masters of High Schools affiliated to the University.
4. Persons to be elected by the teachers teaching in colleges other than Degree Colleges affiliated to the University.
5. Persons to be elected by the Professors and Lecturers teaching in Degree Colleges affiliated to the University.
6. Persons nominated by the Jammu and Kashmir State Legislative Assembly.
7. Graduates elected by the Registered Graduates from among their own body.
8. The Deans of Faculties, and
9. Persons to be nominated by the Chancellor to represent interests not otherwise represented.

The Senate is the Supreme Governing Body of the University and exercises the following powers:—

- (a) Of making Statutes, and of amending or repealing the same.

- (b) Of considering and passing resolutions on the annual report, the annual accounts, and the financial estimates.

The Senate may make Regulations prescribing :—

- (a) The procedure to be observed at its meetings.
- (b) The notice to be given of its meetings and of business to be considered thereat.
- (c) The keeping of record of its proceedings.

The Syndicate is the executive body of the University and its members are :—

Class I. Ex-Officio Members

- (i) The Vice-Chancellor ;
- (ii) The Director of Education;
- (iii) The Deans of Faculties; and
- (iv) The Treasurer.

Class II. Other Members

- (i) Three members of the Senate elected by the Senate at its Annual meeting.
- (ii) One Principal elected by the Principals of affiliated colleges.
- (iii) One member elected by the Academic Board from its own body, and
- (iv) Three persons nominated by the Chancellor.

Besides the Senate and the Syndicate, there is the Academic Board.

- (a) To make proposals to the Syndicate for the institution of Professorships, Readerships, Lecturerships, and other teaching posts.
- (b) To make regulations for, and to award Fellowships, Scholarships, Exhibition, Bursaries, Medals and other rewards.
- (c) To recommend the appointment of Examiners.
- (d) To control and manage the University Library.
- (e) To promote research within the University, etc.

The Faculties

At present there are four Faculties of Arts, Education, Science and Oriental Learning, with a Dean for each Faculty.

As conditions improve, Faculties for Medicine, Law and Commerce are contemplated to be opened.

The maximum number of members constituting each Faculty is 20 each in Art and Science Faculties and 10 each in the Faculties of Education and Oriental Learning.

Under each Faculty, Boards of Studies have been constituted as under:—

Faculty of Arts

1. English and Philosophy ;
2. History, Political Science and Economics ;
3. Mathematics ;
4. Sanskrit, Hindi and Punjabi ;
5. Persian, Arabic and Urdu ; and
6. Indian Music.

Faculty of Science

1. Physics ;
2. Chemistry ;
3. Botany & Zoology ;
4. Geography and Geology ; and
5. Mathematics.

Faculty of Education

1. Teachers' training.

Faculty of Oriental Learning

1. Sanskrit, Hindi and Punjabi ;
2. Arabic, Persian and Urdu.

The Boards of Studies recommend Syllabi and Courses of Reading for the various Examinations which are next passed by the Faculties, the Academic Board, the Syndicate and finally by the Senate. In addition to the Boards of Studies, a School Board under the chairmanship of the Director of Education of the State is constituted and its duties are to consider all questions relating to the Matriculation Examination, and to report thereon to the Syndicate ; to recommend Courses of Study and Reading to be followed by candidates for the Matriculation Examination ; to report on the conditions to be fulfilled and the

test to be passed by candidates for Matriculation ; to consider all objections raised by the Head Master of any recognised High School to questions set at the Examinations.

A new experiment has been launched by the establishment of two multipurpose High Schools in the Cities of Srinagar and Jammu, where besides the teaching of general arts subjects, the teaching of indigenous Arts and Crafts has been introduced, for each of which an integrated syllabus on sound scientific and educational lines has been drawn. These new subjects that have been introduced from the lower secondary stage right upto the Higher secondary stage are as under :—

1. Agriculture, 2. Wood-work, 3. Dyeing and Weaving, Mechanic's and Fitter's Course, 5. Builder's and Draftsman's Course, 6. Art masters', Designers' and Painters' Course, 7. Pottery, 8. Sericulture, 9. Indian Music, 10. Rural Economics and Co-operation, 11. Papier Mache and Embroidery.

The purpose with which the teaching of these subjects has been introduced is to give a technical bias to the students preparing for the Matriculation Examination of this University with a view to induce such of them as come from the artisan classes to develop the cottage industries of the State on scientific lines, and to divert them from pursuing the reading of Arts subjects in College Classes, so that they may become efficient technicians in these professions pursued by their fathers and fore-fathers. Incidentally it will help in reviving these indigenous crafts of the State, for which it has been famous. This whole scheme is under the active consideration of a Committee appointed by the Senate.

Examinations

The University at present conducts the following Examinations :—

1. M.A. & M.Sc.
2. B.A., B.Sc. and B.A. (Honours).
3. B.T.
4. F.A. & F.Sc.
5. Matriculation.
6. Proficiency, High Proficiency and Honours Examinations in Hindi, Urdu, Punjabi, Arabic, Sanskrit and Persian.

The entrance qualifications for each of these examinations are as under :—

For M.A. & M.Sc. ...	...	B.A. & B.Sc. with relevant elective subjects.
For B.A. & B.Sc. ...	...	F.A. & F.Sc.
For B.T. ...	...	B.A. or B.Sc.
For F.A. & F.Sc. ...	...	Matriculation with Science in the case of F.Sc.
For Proficiency, High Proficiency and Honours Examinations.		No entrance qualifications are necessary, except that in the case of Honours in Sanskrit, a candidate must have passed High Proficiency Examination in Sanskrit.

The duration of each course of study is as under :—

M.A. & M.Sc. ...	2 years.
B.A. & B.Sc. ...	2 years.
F.A. & F.Sc. ...	2 years.
Matriculation ...	2 years in Higher Secondary Classes 9th and 10th.
Proficiency, High Proficiency and Honours Examinations ..	1 year course.

In the year 1953, 6205 candidates appeared in these Examinations out of which 3094 were declared successful.

Extension Lectures

A system of Extension Lectures has been introduced and a number of distinguished Professors and Lecturers have been invited to deliver lectures to the students of this University. These lectures will, henceforth, be printed and published by the University.

Affiliation

The number of High Schools affiliated to the University is 68. The Colleges affiliated to the University are as under :—

Arts Colleges

1. Amarsingh College, Srinagar ;
2. Sri Pratap College, Srinagar ;
3. Government Gandhi Memorial College, Jammu ;
4. Maharani Mahila College, Jammu ;
5. Teachers' Training College, Srinagar ;
6. Government Women's Colleges, Srinagar ;
7. Gandhi Memorial College, Srinagar ;
8. Government Intermediate College, Anantnag, Kashmir ;
9. Government Intermediate College, Sopore, Kashmir.

Oriental Colleges

10. Shri Rughnath Mahavidyalaya, Jammu ;
11. Nasrat-ul-Islam Oriental College, Srinagar ;
12. Jamia-Madinat-ul-Alum Oriental College, Srinagar.
13. Mahila Mahavidyalaya, Srinagar.

In the Teachers' Training College, besides preparing teachers for B. T. Degree Examination, a large number of primary and lower secondary school teachers are trained in Basic Education Certificate Examination, where besides imparting instruction in the teaching of general subjects, instruction for the teaching of newly introduced subjects of Arts and Crafts is proposed to be given.

The total No. of students reading in the High Schools and Colleges is as under:—

High Schools : 5,500.
 Arts Colleges : 3,000.
 B.T. College : 60.
 Oriental Colleges : 125.

The sources of income and the estimates of receipts for the year (1953-54) are as under:—

	Rs.
(i) Examination Fees ... ..	...
(ii) Fees other than Examination	1,74,000
(iii) Miscellaneous Receipts	13,450
	10,600

	Rs.
(iv) Government Grant	50,000
Total ...	<u>2,48,050</u>

Facilities for Post-graduate study in M.A. English and Economics and M.Sc. Geology exist at present.

General

The University Calendar, the Syllabi and Courses of Reading prescribed for various Examinations has been published. It is proposed to introduce many schemes of expansion and improvement gradually. Immediately it is contemplated to have a residential college directly under the University.

In collaboration with the Muslim University, Aligarh, the University of Jammu and Kashmir has established a High Elevation Cosmic Research Observatory at Gulmarg, a place at an elevation of about seven thousand feet in Kashmir, with Dr. P. S. Gill as its Director and as an Honorary Professor of Physics of this University.

KARNATAK UNIVERSITY

Introductory

In response to a long-standing demand for a separate University for Karnatak and in conformity with the principles of establishing regional Universities in the State of Bombay, the Government of Bombay appointed the Karnatak University Committee on 17th April, 1947, under the Chairmanship of Mr. Justice N. S. Lokur, then a Judge of the High Court of Bombay. The Karnatak University Bill, based on the recommendations of the Committee was passed by the Bombay Legislature in April, 1949 (Bombay Act No. XX of 1949). The University Office actually started working in the month of July, 1949, in a room in the Town Hall, Bombay. The Office was shifted to Dharwar in October, 1949, when the Government of Bombay lent a few rooms in the Training College Building, Dharwar. Government later gave the whole building for the University. Government also gave a site measuring about 300 acres known as the Chhotamahabaleshwar site, about 2 miles from the city of Dharwar, for construction of the University Buildings. The construction of the buildings on the site is in rapid progress. In June 1952 the University started two Post-graduate Departments—Department of Kannada and the Department of Statistics. The University also organised a Library consisting of more than 15,000 volumes within a period of two years. It also launched a scheme of extension lectures by the end of 1952.

At present the University has the following post-graduate departments—

- (i) Department of Kannada,
- (ii) Department of Statistics,
- (iii) Department of Chemistry.

It is also proposed to start the Departments of Physics and Geology in a short time. The appointment of a Professor each for the Departments of Physics and Chemistry has also been made.

As far as under-graduate instruction is concerned the University is an affiliating one.

Officers and Staff of the University

Chancellor : H. E. Sir Girja Shankar Bajpai, Governor of Bombay.

Vice-Chancellor : Shri C. C. Hulkoti, B.A., LL.B.

Deans of Faculties

- (a) *Arts* : Vacant.
- (b) *Science* : Principal G. S. Paramasivayya, M.Sc., M.I.R.E., Lingaraj College, Belgaum.
- (c) *Law* : Principal V. R. Bhat, M.A., LL.M., R. L., Law College, Thalakwadi, Belgaum.
- (d) *Engineering* : Principal A. S. Menon, B.Sc. (Engg.), B. V. B. College of Engineering and Technology, Hubli.
- (e) *Agriculture* : Prof. M. A. S. Iyengar, B.Ag., College of Agriculture, Dharwar.

Constitution of the University**(1) The University**

The Chancellor, the Vice-Chancellor, the members of the Senate, the Syndicate and the Academic Council constitute the body corporate of the University. The main duties and functions of the University are, to provide for instruction, teaching and training in such branches of learning and courses of study as it may think fit and to make provision for research and supervise the teaching in colleges and recognized institutions, to institute degrees, titles, diplomas and other academic distinctions, to hold examinations and confer degrees, titles and diplomas and other academic distinctions, to inspect colleges and recognized institutions and to take measures to ensure that proper standards of instruction, teaching and training are maintained, to control and co-ordinate the activities of and give financial aid to affiliated colleges and recognized institutions, to hold and manage endowments, and to institute and award fellowships, scholarships, studentships, exhibitions, medals and prizes and to do all other such acts to cultivate and promote arts, science and other branches of learning and culture.

All educational institutions situated within the University are to be affiliated to the Karnatak University.

(2) Officers of the University

The officers of the University are—

- (1) The Chancellor,
- (2) The Vice-Chancellor,
- (3) The Deans of Faculties,
- (4) The Registrar and such other Officers of the University declared by the Statutes to be Officers of the University.

(3) The authorities of the University

The authorities of the University are—

- (1) The Senate,
- (2) The Syndicate,
- (3) The Academic Council,
- (4) The Faculties,
- (5) The Board of University Teaching,
- (6) The Boards of Studies and other Boards.

The Senate—The Senate is the General Body, the main duties and functions of which are—to provide for instruction, teaching and training in such branches of learning and courses of study and research, etc., to consider and pass Resolutions on the Annual Report, Annual Accounts and Financial Estimates and to consider the Annual Financial Estimates prepared by the Syndicate and pass Resolutions with reference thereto, to elect office-bearers and authorities, as provided in the Act and Statutes.

The Syndicate.—The Syndicate is the executive body of the University and consists of the Vice-Chancellor (ex-officio Chairman), the Director of Education or the Deputy Director of Education of the Bombay State who is a member of the Senate (ex-officio), eight persons elected by the Senate from amongst its members and five persons elected by the Academic Council from amongst its members to represent the different Faculties.

Academic Council.—The Academic Council is the academic body of the University, consisting of the Vice-Chancellor (ex-officio Chairman), the Deans of Faculties, Heads of the University Departments, Principals of Degree Colleges, Chairman of the Boards of Studies and Heads of Recognised Institutions and four members elected by the Senate from amongst themselves. The Academic Council is responsible for the maintenance of the standards of teaching and examinations within the University.

Faculties and Boards of Studies.—There are separate Faculties for Arts, Social Sciences, Science, Law, Engineering, Agriculture and Medicine. Each Faculty elects its own Dean. There are also various Boards of Studies.

(4) **Post-graduate Teaching**

All post-graduate instruction, teaching and training within the University area is to be conducted by the University or through its affiliated colleges on behalf of the University. It is the duty of the Board of University Teaching to organise and co-ordinate the post-graduate instruction, teaching and training in the University area. No Teacher of the University is to be appointed without the recommendation of the Committee of Selection, the constitution of which has been laid down by the Act. No Teacher of the University is recognized without the recommendation of the Committee for Recognition of the Teachers of the University.

The appointment of Examiners at the various examinations of the University is made by the Syndicate on the recommendations of the Committee for appointment of examiners in each Faculty.

There is a Legal Advisory Committee to advise the Syndicate and other authorities in matters concerning legal issues.

There is a financial Advisory Committee to advise the Syndicate and other authorities on financial matters.

Members of the Syndicate (as on 17th August, 1953)

Shri C. C. Hulkoti, B.A., LL.B.,
Vice-Chancellor and *ex-officio* Chairman,
Karnatak University, Dharwar.

Shri D. C. Pavate, M.A., (Cant.), (*ex-officio*),
Director of Education, Bombay State, Poona-1.

Principal G. S. Paramasivayya, M.Sc., M.I.R.E.,
Lingaraj College, Belgaum.

Principal V. R. Bhat, M.A., LL.M.,
R. L. Law College, Belgaum.

Prof. V. V. Jatti, M.Sc.,
Lingaraj College, Belgaum.

Shri N. G. Joshi, M.Sc., LL.B.,
Pleader, Ramdev Galli, Belgaum.

Shri H. F. Kattimani, B.A., M.L.C.,
Deshpande Nagar, Hubli.

Shri G. S. Kulkarni, B.Sc., B.T.,
Asstt. Master, Basel Mission High School, Dharwar.

Prof. S. S. Malwad, M.A.,
Director of Kannada Research Institute, Dharwar.

Principal T. K. Patil, M.A. (London).
Vijay College, Bijapur.

Shri V. C. Pavate, B.Ag.,
U. B. Hill, Dharwar.

Offg. Registrar

Shri S. S. Wodeyar, M.A., LL.B.

Librarian

Shri K. S. Deshpande, M.A., Dip.Lib.

Teaching Staff

Department of Kannada

Shri T. N. Srikantiah, M.A.,
Professor and Head of the Department of Kannada.

Shri R. C. Hiremath, M.A.,
Reader in Kannada.

Department of Statistics

Shri N. U. Prabhu, M.A.,
Reader and Head of the Department of Statistics.

Department of Chemistry

Dr. K. S. Nargund, M.Sc., Ph.D. (London).
A.I.I.Sc., D.I.C.,
Professor and Head of the Department of Chemistry.

Department of Physics

Dr. N. R. Tawde, M.Sc., Ph.D., (London),
Professor of Physics.

Post-graduate instruction in subjects other than those mentioned above is imparted to students under the control of the University by recognized teachers of the different affiliated colleges of the University. Dharwar and Belgaum have been chosen as the two centres for the purposes of delivering lectures to post-graduate students in Arts subjects other than Kannada. Arrangements are also made to impart instruction in Science subjects at these two centres to post-graduate students.

Affiliated Colleges and their Principals

1. Karnatak College, Dharwar,
Principal V. K. Gokak, B.A. (Oxon.).
2. Lingaraj College, Belgaum,
Principal G. S. Paramasivayya, M.Sc., M.I.R.E.
3. Secondary Training College, Belgaum,
Dr. G. S. Krishnayya, M.A., Ph.D. (Columbia).
4. Raja Lakhamagouda, Law College, Belgaum,
Principal V. R. Bhat, M.A., LL.M.
5. Rani Parvatidevi College, Belgaum,
Principal P. N. Narasinga Rao, M.A.
6. J. G. College of Commerce, Hubli,
Principal B. M. Ramalingayya, M.A.
7. Basaveshwar College, Bagalkot,
Dr. S. C. Nandimath, M.A., Ph.D. (London).
8. Vijay College, Bijapur,
Principal T. K. Patil, M.A. (London).
9. B. V. Bhoomaraddi College of Engineering and
Technology, Hubli,
Principal A. S. Menon, B.Sc. (Engg.).
10. College of Agriculture, Dharwar,
Principal S. W. Mensinkai, M.Sc., Ph.D. (London),
D.I.C. (Lond), Dip. Agric. (Reading).

11. K. E. Board's Arts and Science College, Dharwar,
Appointment pending.
12. Kanara College, Kumta,
Principal L. S. Kamat, M.A., LL.B.
13. Kadasiddheshwar Arts College, Hubli,
Principal C. S. Bagi, M.A.
14. Kasturba Medical College, Udipi,
Capt. N. Mangesh Rao, M.B., C.M., F.R.C.S., D.L.O.

Recognized Institution

Kannada Research Institute, Darwar,
Director: Prof. S. S. Malwad, M.A.

The total number of students in the various affiliated colleges as on March, 30, 1950, was 4,573.

The number of post-graduate students receiving instruction under the direct control and supervision of the University is as under:—

Courses of study					1951-52	1952-53
M.A.	..	..	..	..
M.Sc.	...	...	...	...	87	150
M.Sc. (Agri.)	...	...	...	...	48	70
M.Ed.	...	...	...	...	17	16
LL.M.	...	...	...	...	51	106
Ph.D.	...	...	...	...	5	12
					18	9

Scholarships and Prizes

During the first year, the University gave as many as 42 prizes out of its own funds to students standing first at the various examinations conducted by the University. For the present, prizes of the value of Rs. 150 and Rs. 100 each are awarded out of the University funds to the students standing highest in the degree and under-graduate examinations. The prizes are awarded subject to the condition that the students should have passed the examination at least in the second class wherever classes are awarded.

The following is the list of prizes, scholarships and Gold Medal awarded by the University out of the endowments received from the public:—

- (1) 'The Shri K.H. Kabbur Scholarships' of the monthly value of Rs. 25 is awarded to the student who stands first among the successful candidates at the B.Sc. Degree Examination with Chemistry as the Principal subject and who continues further studies either for the M.Sc. at the Karnatak University or for the B.Sc. (Tech.) course of the Bombay University.
- (2) 'The Shri Krishna Raddi B. Bhadrapur Retired Collector Essay Prize' of the value of Rs. 100 in cash is awarded for the best essay on a subject connected with the linguistic social or political unification of Karnatak and thereafter on a problem peculiar to Karnatak.
- (3) 'The Shri Krishna Raddi B. Bhadrapur Retired Collector Prize' of the value of Rs. 100 in cash, is awarded to the candidate standing highest at the S. S. C. Examination among the successful candidates from the village Nalavadi (Taluka Navalgun, District Dharwar), provided he/she prosecutes his/her studies in any of the colleges affiliated to the Karnatak University.
- (4) 'The Shri Krishna Raddi B. Bhadrapur Retired Collector Prize' of the value of Rs. 100 in cash, is awarded to the candidate standing highest at the S.S.C. Examination among the students appearing from the Centres situated within the jurisdiction of the Karnatak University provided he/she prosecutes his/her studies in any of the Colleges affiliated to the Karnatak University.
- (5) 'The Dharwar Bar Association Prize' of the value of Rs. 100 in cash is awarded to the student who secures the highest number of marks at the first LL.B. Examination obtaining at least 60 per cent of the total marks.
- (6) 'The Gururao Annarao Jamkhandi Prize' of the value of Rs. 100 in cash is awarded to the student who passes the B.A. Degree Examination at least in

the second class securing the highest number of marks in Philosophy, particularly Indian Philosophy, and if such a candidate is not available, to a candidate securing the highest number of marks in the following subjects, in order of priority—

- (a) Sanskrit Literature or (b) History or (c) Politics or (d) Economics or (e) any other subject at the discretion of the Vice-Chancellor.
- (7) 'The Shri K. H. Kabbur Prize' of the value of Rs. 100 in cash is awarded to the student who stands first among the successful candidates at the B. Com. Examination, securing at least 50 per cent of the marks on the total.
- (8) 'The Kumari Indubala Laxmidas Patel Prize in Physics' of the value of Rs. 100 (in the form of books on technical subjects) is awarded to the student standing first in Physics at the Intermediate Science Examination.
- (9) 'The Dr. M. S. Wagle Prize' of the value of Rs. 100 in cash is awarded to the student standing first at the Intermediate Science Examination (B Group), with at least 50 per cent of the total marks, provided the candidate takes up the M.B.B.S. course either in this or in any other University whose examinations have been recognized by the Karnatak University.
- (10) 'The Gangadhar Hanshetti Memorial Gold Medal' is awarded to the candidate who passes the B.Com. Examination with the highest number of marks.
- (11) 'The Principal M. V. Donde Scholarships' of the value of Rs. 30 per month is awarded every year to a son or a daughter of a Primary School Teacher outside Bombay City who secures the highest number of marks at the S.S.C. Examination or at the Entrance Examination of the Karnatak University if the Karnatak University holds such an examination provided he or she prosecutes his or her studies in any college affiliated to the Karnatak University.
- (12) 'The Sir Gurunath Bewoor Memorial Prize' of the value of Rs. 100 is awarded every year to a student

who stands first among the candidates appearing for the B.A. Examination of the Karnatak University in Sanskrit Honours.

The University has also instituted a number of studentships which are awarded on merit to students of the various post-graduate classes.

In addition to the above, the affiliated colleges of the University also award a number of prizes and scholarships on merit.

Examinations

During March and April 1950 (immediately after its inception) the University conducted thirteen examinations and the total number of students who appeared for the various examinations was 1,810. On the results of these examinations 44 prizes and four scholarships were awarded.

During the first half of 1951 the University conducted 19 examinations and the total number of students who appeared for the various examinations rose to 2,957.

At the examinations conducted in 1952 the number of candidates registered for the various examination was 3,587.

A statistical statement of the candidates who appeared and passed in the years 1951 and 1952 is given below :—

Statement showing the numbers of candidates who appeared and passed at the various Examinations held in March/April 1950.

578

KARNATAK

Examination	No. of candidates appeared.	I. Class with distinction.	PASSED		Total	Percentage
			I	II		
Inter Arts.	482	...	...	29	151	37.34
B.A. (Gen. & Hons.)	146	...	5	28	63	65.74
B.T. ...	57	...	2	30	24	98.24
T.D. ...	16	...	...	...	16	100.
Inter-Commerce ...	144	...	...	15	88	71.52
B.Com. ...	3	...	...	...	1	33.33
Inter-Science ...	383	...	39	149	60	64.75
B.Sc. (Sub. & Principal.)	217	2	...	25	147	80.18
F.Sc. (Agri.)	70	...	...	...	55	78.57
S.Sc. (Agri.)	65	...	...	...	57	87.69
B.Sc. (Agri.)	82	2	4	25 (Hons.)	41	87.80
F.E. ...	77	...	...	2	22	31.16
1st LL.B. ...	67	...	...	13	18	46.27
Total	1,809	4	50	316	743	1,113

Statement showing the numbers of candidates who appeared and passed at the various Examinations held in March/April 1951 and 1952.

Examination	No. of candidates appeared.		PASSED		Percentage		
	1951 April.	1951 October. 1952	1951	1952	1951	1952	
Inter Arts ...	...		897	430	461	49.93	51.39
B.A. (General)	861		23	35	16	72.91	69.56
B.A. (Special)	48		257	153	186	75.00	72.39
M.A. ...	204		45	14	32	46.66	71.11
Inter-Commerce	30		123	87	55	70.2	45.79
B.Com.	124		93	6	23	60.00	24.74
B.Ed.	10	+ 4 = 14	108	70	94	87.50	87.03
T.D. ...	80		15	19	13	100.	86.66
M.Ed.	19		12	...	11	...	91.66
Inter-Science	...		718	438	441	66.7	61.54
B.Sc. (Subsidiary)	655		257	164	194	84.1	75.48
B.Sc. ...	195	+ 31 = 226	225	137	174	78.3	77.33
M.Sc. (Mathematics).	175		6	...	4	...	66.66
M.Sc. (Science)	5		12	9	5	64.28	41.66
	14						

Continued on next page

KARNATAK

Examination	No. of candidates appeared		PASSED		Percentage.	
	1951 April	1951 October 1952	1951	1952	1951	1952
F.E. ...	117	138	43	63	36.75	45.65
S.E. ...	...	36	...	14	...	38.88
F.Sc. (Agri.)	35	37	23	16	65.71	43.24
S.Sc. (Agri.)	59	47	32	29	54.23	61.7
B.Sc. (Agri.)	71	50	53	39	74.64	78.
M.Sc. (Agri.)	...	6	...	3	...	50.00
First LL.B. ...	157	+121=278	65	102	41.40	42.67
Second LL.B.	62	+84=146	29	63	46.77	64.28
LL.M. ...	...	1	...	...	...	...
M.Sc. (Translation Test.)	25 + 11=36	30	11	26	44.	83.86
	<u>2,948</u>	<u>3,473</u>	<u>1,818</u>	<u>20.64</u>		

Library

The University Library is managed by the Library Committee appointed by the Syndicate. The Library is open to post-graduate teachers, members of the various University authorities and bodies, and students of the University. It has been thrown open as a Reading Room for students of affiliated colleges.

Laboratories

The Laboratories of the University Departments of Chemistry, Physics, Geology and Statistics are being equipped gradually. In addition the affiliated colleges also have laboratories of their own. The College of Agriculture, Dharwar, has a well-equipped laboratory, museum and has its own farms spreading over 800 acres.

University Publication Board

The University has a Board of Publication consisting of the Vice-Chancellor, six members nominated by the Syndicate to represent the different Faculties and three members appointed by the Syndicate for their expert knowledge and experience.

Among the duties of the Board are to recommend to the Syndicate the publication grants of the University and to undertake printing of text-books and books of popular interest.

Board of Extra-Mural Studies

The University Board of Extra-mural Studies is a Committee appointed by the Syndicate. Arranging popular lectures on scientific and technical subjects within the territorial limits of the University is one of the functions of the Board. The Board also arranges lectures for the benefit of post-graduate students.

On 9th November, 1952, the Vice-Chancellor inaugurated at Gadag a series of extension lectures. During the period from November 1952 to April 1953, six extension lecture camps have been held at various mofussil places.

The University has published two of the lectures delivered under the auspices of the University in the form of books.

Board of Sports

The University has a Board of Sports. The objects of the Board are to organise, control, manage or supervise Inter-Collegiate Sports and Tournaments within the jurisdiction of the University and to foster, undertake and conduct Inter-University Competitions.

Inter-Collegiate Sports Meets are arranged every year under the auspices of one particular affiliated college. The University also participates in the Inter-University Sports activities.

Hostels

The University has made arrangements for the residence of 30 post-graduate students. The affiliated Colleges make their own hostel arrangements.

Admission to the University, Courses of Study, Examinations and Degrees.

Admission to the First Year courses of study leading either to the Bachelor's Degree in Arts, Science, Commerce or Agriculture is governed by Statute 176 which is quoted below :—

St. 176.—For admission to the courses of First Year A, B, C, Groups, and the First Year Commerce and First Year Agricultural Courses, an applicant must have passed the Secondary School Certificate Examination conducted by the Secondary School Certificate Examination Board of the Bombay State in the subjects mentioned under the following eligibility Groups A, B, C, D and E for admission to the respective courses of studies mentioned against each, with at least 35 per cent of the marks in each head, the remark 'condoned' made by the S.S.C.E. Board in the Statement of Marks against a subject being treated as equivalent to passing in that subject with 35 per cent of the total marks.

Eligibility Group 'A' : For admission to the First Year 'A' Course.

- | | |
|---|------------|
| I. General English (without texts) (1) | 100 marks. |
| II. Any one of the following Modern Indian Languages. | 100 marks. |

Kannada (5), Telugu (7), Marathi (3),
Gujarati (4), Urdu (8), Sindhi (9), Tamil
(6), Bengali (10)

or

Additional English (with Texts) (11)

or

Additional Hindi (with texts) (12).

III. Any one of the following Classical or Modern
European Languages :— 100 marks.

Sanskrit (16), Pali (17), Ardhamagadhi (18), Arabic
(19), Persian (20), Avesta-Pahlavi (21), Latin (22),
Hebrew (23), Greek (24), French (25), German
(26), Spanish (27), Italian (28), Portuguese (29).

IV. Any one of the following Natural Science
Groups :— 100 marks
General Science (34), Physics and Chemistry (35), Botany
and Zoology (36), Physiology and Hygiene (37).

V. Any one of the following Mathematics
subjects :— 100 marks.
Algebra (32), Geometry (33).

VI. Any one of the following Social Studies :— 100 marks.
History (13), Indian Administration and Civics
(14), Geography (15).

VII. Any one of the following subjects :— 100 marks.
Arithmetic (31) Algebra (32), Geometry (33),
History (13), Indian Administration and
Civics (14), Geography (15)

or

Any one of the following crafts :—
House Craft (44), Radio Service (58), Hand-
Spinning and Hand-Weaving (59), Tailor-
ing and Cutting (61), Tailoring, Embroidery
and Fancy Work (62), Typography (63).

N.B.—Provided that—

- (a) no subject chosen under any one of these seven heads
should be repeated under any other head ;
- (b) combined passing in any two of the subjects—Algebra,
Geometry and Arithmetic is permissible.

Eligibility Group 'B' : For admission to the First Year 'B'
Course, or for First Year Agriculture Course.

- I. General English (without texts) (1) 100 marks.
 II. Any one of the following Modern Indian Languages— 100 marks.

Kannada (5), Marathi (3), Urdu (8), Tamil (6),
 Telugu (7), Gujarati (4), Sindhi (9),
 Bengali (10)

or

Additional English (with texts) (11)

or

Additional Hindi (with texts) (12)

- III. Algebra (32) 100 marks.
 IV. Geometry (33) 100 marks.
 V. & VI. Physics and Chemistry (35). 100 marks.
 VI. & VII. Agricultural Science (2 papers) (39 and 40.) 200 marks.

or

- VI. Any one of the following courses in Social Studies :— 100 marks.
 History (13), Indian Administration
 and Civics (14), Geography (15).

- VII. Any one of the following subjects :— 100 marks.

- (a) Sanskrit (16), Ardhamagadhi (18), Persian (20), German (26), Arithmetic (31), Geography (15), French (25), Portuguese (29)
 (b) House Craft (44), Radio Service (58), Hand-Spinning and Hand-Weaving (59), Tailoring and Cutting (61), Tailoring, Embroidery and Fancy Work (62), Typography (63).

Provided that—

- (a) no subject chosen under any one of these seven heads should be repeated under any other head ;
 (b) combined passing in any two of the subjects—Algebra, Geometry and Arithmetic—is permissible.

Eligibility Group 'C' : For admission to the First Year Commerce Course.

- I. General English (without texts) (1) 100 marks.
 II. Any one of the following Modern Indian Languages— 100 marks.

Kannada (5), Marathi (3), Urdu (8), Tamil (6),
Telugu (7), Gujarati (4), Sindhi (9),
Bengali (10),

or

Additional English (with texts) (11)

or

Additional Hindi (with texts) (12).

III. Geography (15) 100 marks.

IV. Any one of the following Natural
Science Groups. 100 marks.

General Science (34), Physics and Chemistry (35), Botany
and Zoology (36), Physiology and Hygiene (37).

V. Arithmetic (31) 100 marks.

VI and VII. Elements of Commerce (39), 2 papers
carrying 200 marks, in the case of Commercial
High Schools only 200 marks.

or

VI. Any one of the following subjects:— 100 marks.
Indian Administration and Civics (14), Book-
Keeping and Accounts (45)

and

VII. Any one of the following subjects 100 marks.

History (13), Algebra (32), Geometry (33),
Shorthand and Typewriting (46 (i) and (ii))
Book-keeping and Accounts (45), Sanskrit
(16), Ardhamagadhi (18), Persian (20),
French (25), German (26), Portuguese
(29), House Craft (44), Radio Service (58),
Hand-spinning and Hand-weaving (59),
Tailoring and Cutting (61), Tailoring,
Embroidery and Fancy Work (62),
Typography (63).

N.B.—Provided that—

- (a) no subject chosen under any one of these 7 heads
should be repeated under any other head;
- (b) combined passing in any two of the subjects—Algebra,
Geometry and Arithmetic—is permissible.

Eligibility Group 'D': Common course for admission to the
First Year A, B, C, First Year Commerce and First Year
Agriculture Course.

- I. General English (without texts) (1) 100 marks.
 II. Any one of the following Modern Indian Languages :— 100 marks.

Kannada (5), Marathi. (3) Urdu (8), Tamil (6), Telugu (7), Gujarati (4), Sindhi (9), Bengali (10)

or

Additional English (with texts) (11)

or

Additional Hindi (with texts) (12).

- III. Any one of the following Classical or Modern European Languages :— 100 marks.

Sanskrit (16), Pali (17), Ardhamagadhi (18), Arabic (19), Persian (20), Avesta-Pahlavi (21), Latin (22), Hebrew (23), Greek (24), French (25), German (26), Spanish (27), Italian (28), Portuguese (29).

- IV. Any one of the following Natural Science Groups :— 100 marks.

General Science (34), Physics and Chemistry (35), Botany and Zoology (36), Physiology and Hygiene (37).

- V. Algebra (32). 100 marks.
 VI. Geometry (33) 100 marks.
 VII. Any one of the following Social Studies :— 100 marks.

History (13), Indian Administration and Civics (14), Geography (15).

N.B.—Provided that—

- (a) no subject chosen under any one of these 7 heads should be repeated under any other head ;
 (b) combined passing in any two of the subjects—Algebra, Geometry and Arithmetic—is permissible.

Eligibility Group 'E' : Common Course for admission to the First Year A, B, C, First Year Commerce and First Year Agriculture Course.

- I. General English (without texts) (1) 100 marks.
- II. (a) (i) Any one of the following Modern Indian Languages :— 200 marks.
 Kannada, Marathi, Urdu, Hindi, Tamil, Telugu
 Bengali.
or
 (ii) An Additional Paper in English,
and
 (b) (i) Any one of the following Ancient Languages :—
 Sanskrit, Pali, Ardhamagadhi,
 Persian, Arabic, Greek, Latin
or
 (ii) Any one of the following Modern European Languages :—
 French, German, Portuguese.
- III. History and Geography 100 marks.
- IV. Mathematics, consisting of Algebra and Geometry 200 marks.
- V. (i) General Science, or 100 marks.
 (ii) Physics and Chemistry, or
 (iii) Botany and Zoology, or
 (iv) Domestic Science, or
 (v) Physiology and Hygiene.

Provided that—

- (a) a student passing the S.S.C. Examination conducted by the S.S.C. Examination Board in the subjects prescribed from time to time (1) for Agricultural or Technical High Schools or (2) for Commercial Schools shall also be eligible for being admitted as a student of the University to the First Year ' B ' Group Course, First Year Agriculture course or to the First Year Course in Commerce, as the case may be.
- (b) And further provided that a student passing the S.S.C. Examination conducted by the S.S.C. Examination Board in the subjects specified in proviso (a) above shall also be eligible for being admitted as a student of the University to the First Year ' A ' Group Course, provided that such a student passes, in addition at the

said examination, an Examination in any one of the Ancient Languages or Modern European Languages with 35 per cent of the total marks for it.

or

II. The School Leaving Certificate Examination held by the Government of Bombay, under the following conditions—

- (a) The holder of the School Leaving Certificate, who has completed and passed in the courses laid down for Agricultural Schools or for Technical Schools, is deemed eligible for admission to the First Year 'B' Group Course.
- (b) The holder of the School Leaving Certificate, who has completed and passed in the courses laid down for Commercial Schools, is deemed eligible for admission to the First Year Commerce Course.
- (c) The holder of the School Leaving Certificate, who has attended a vocation school and passed the examination for the course concerned, and who seeks admission to the First Year 'A' Group course is deemed eligible for admission thereto, provided he passes in a test as directed by the Vice-Chancellor in a classical language or a Modern European Language of the S.S.C.E. standard.

or

III. The Matriculation or Entrance Examination conducted or controlled by any Statutory Indian University.

IV. Any other examination recognized by the University as equivalent to any of the examinations named above and which satisfies such other conditions as may be laid down in granting such equivalence.

(Note.—The numbers suffixed to the subjects referred to in the Statute are from the S.S.C.E. Green Book, 2nd Edition (revised February, 1951) containing a list of subjects and courses of study for the Examination of 1952.)

In the case of admission to other courses of studies, the Rules and Regulations of the University of Bombay have been adopted with certain modifications.

Finance

The main source of income to the University is the annual grant from the Government of Bombay and the examination and other fees collected by the University. Efforts are also being made to collect funds for the university from the general public.

An abstract of the Budget Estimates for the year 1953-54 is given below.

BUDGET ESTIMATES

(from 1st July, 1953

ABST

INCOME	Actuals of 11 months for 1952-53 ending 28-2-1953	Revised Estimates for 12 months for 1952-1953 ending 31-3-1953	Estimates for 15 months for 1952-53 from 1st April, 1952 to 30th June, 1953	Estimates for 12 months for 1953-54 from 1st July, 1953 to 30th June, 1954
	Rs. As. Ps.	Rs.	Rs.	Rs.
1. Government Grant.	2,55,000 0 0	3,40,000	4,25,000	3,40,000
2. Examination Fees	1,65,100 1 0	1,82,709	1,82,709	2,08,595
3. Post-graduate Dept. Registration & Tuition Fees	34,087 4 0	47,766	47,766	41,550
4. Other Fees ...	52,508 0 0	52,545	73,545	57,525
5. Income from Publications.	447 8 0	460	460	525
6. Miscellaneous ...	2,022 3 9	2,047	2,575	1,700
7. Advances, Deposits & Refunds	14,197 1 0	19,745	19,745	12,800
Carried over				

FOR 1953-54

to 30th June, 1954)

RACT

EXPENDITURE	Actual of 11 months for 1952-53 ending 28-2-1953	Revised Estimates for 12 months for 1952-1953 ending 31-3-1953	Estimates for 15 months for 1952-53 from 1st April, 1952 to 30th June, 1953	Estimates for 12 months for 1953-54 from 1st July, 1953 to 30th June, 1954
	Rs. As. Ps.	Rs.	Rs.	Rs.
I. Establishment charges.	83,049 9 0	93,927	1,21,499	1,13,695
II. Post-graduate Instruction.	74,689 4 6	92,599	1,19,288	2,04,227
III. Examinations	1,66,682 3 3	1,80,800	2,85,750	1,92,490
IV. Travelling Allowances.	22,553 12 0	27,250	34,800	29,600
V. Library ...	27,750 2 3	36,714	58,093	70,952
VI. Printing & Advertisement.	9,536 7 0	19,600	28,850	23,000
VII. Stationery & Postage Contingencies.	14,473 7 2	19,550	24,775	20,440
VIII. Elections ...	1,367 3 3	2,000	3,000	1,500
IX. Other items ...	17,144 0 3	40,478	54,953	30,750

BUDGET ESTIMATES

(from 1st July, 1953

ABST

INCOME	Actuals of 11 months 1952-53 ending 28-2-1953			Revised Estimates for 12 months for 1952-1953 ending 31-3-1953	Estimates for 15 months for 1952-53 from 1st April, 1952 to 30th June, 1953	Estimates for 12 months for 1953-54 from 1st July, 1953 to 30th June, 1954
	Rs	As.	ps.	Rs.	Rs.	Rs.
8. Provident Fund (Employees' Subscriptions).	2,101	0	0	2,500	3,700	8,091
9. Hostels Rent of Rooms.	1,595	0	0	1,595	1	1,600
Total of Income ...	5,27,058	1	9	6,49,367	7,57,095	6,72,386
Excess of Expenditure.	...	...	...	...	10,863	51,750
TOTAL ...	5,27,058	1	9	6,49,367	7,67,958	7,24,136

FOR 1953—1954

to 30th June 1954)

RACT

EXPENDITURE	Actual of 11 months for 1952-53 ending 28-3-1953			Revised Estimates for 12 months for 1952-1953 ending 31-3-1953	Estimates for 15 months for 1952-53 from 1st April, 1952 to 30th June, 1953	Estimates for 12 months for 1953-54 from 1st July, 1953 to 30th June, 1954
	Rs.	As.	Ps.	Rs.	Rs.	Rs.
X. Provident Fund, including University's Contributions.	4,202	0	0	5,000	7,400	16,182
XI. Advances, Deposits & Refunds.	17,103	9	0	20,500	20,500	13,800
XII. Laying Foundation Stone & opening ceremonies.	...	...	...	...	...	2,000
XIII. Office Furniture and Equipment.	5,337	7	0	7,050	9,050	5,500
XIV. Examination Furniture (Belgaum Centre).	...	...	...	...	...	...
Total of Expenditure	4,43,289	0	8	5,45,468	7,67,958	7,24,136
Excess of Income	83,769	1	1	1,03,899	...	...
TOTAL ...	5,27,058	1	9	6,49,367	7,67,958	7,24,136

LUCKNOW UNIVERSITY

Introductory : Character of the University

The University is designed to be a unitary, teaching and residential University and this aim has been carried out by the University maintaining two colleges, formerly affiliated to the Allahabad University, *viz.*, the Canning College and the King George's Medical College, the former of which was transferred by the Canning College Act of 1922, and the latter along with the hospital was incorporated in March 1921, in the Lucknow University. Provision is made, however, for recognition of colleges not maintained by the University and at present, there are two such colleges, the Isabella Thoburn College and the Mahila Vidyalaya College. These Colleges form the Women's Department of the University.

In addition to the regular teaching in connection with the University courses provision is also made for tutorial and other supplementary instruction in Colleges and Halls under the control of the University.

Officers and Staff of the University

Chancellor :

H. E. Shri K. M. Munshi,
Governor of the Uttar Pradesh.

Vice-Chancellor :

Acharya Jugal Kishore, M.A., M.L.A.

Honorary Treasurer

The Hon'ble Shri C. B. Gupta, M.A., LL.B., M.L.A.

Deans of Faculties

Arts :

Prof. K. A. Subramania Iyer, M.A.

Science :

Dr. A. C. Chatterji, D.Sc., Dr. Ing.

Medicine :

Dr. V. S. Mangalik, M.D., D.C.P.

Medicine (Ancient and Modern)

The Dean, Faculty of Medicine (Officer-in-Charge),

Law :

Dr. R.U. Singh, M.A., LL.B., S.J.D.

Commerce :

Shri B. N. Chatterji, M.A., B.L.

Registrar :

Shri K. D. Tewari, M.A., LL.B.

Assistant Registrar :

Rai Sahib Sheo Shankar.

Assistant Registrar (Accounts)

Shri A. K. Raizada, B.A.

Assistant Registrar (Attached to Vice-Chancellor)

Shri P. C. Mital, M.A.

Honorary Proctor :

Dr. K. C. Sarkar, M.A., Ph.D.

Additional Proctors

- | | |
|---|--------------------|
| 1. Dr. S. M. Sinha, M.A., Ph.D. | } Faculty of Arts. |
| 2. Dr. M. D. Joshi, M.A., D.Litt. | |
| 3. Shri L. N. Srivastava, M.Sc.—Faculty of Science. | |

LUCKNOW

4. Dr. N. N. Gupta, M.D.—Faculty of Medicine.
5. Shri B. N. Sharma, B.A., LL.M.—Faculty of Law.
6. Faculty of Commerce.
7. Shrimati Sarla Shukla, M.A.,—for Women Students.

Honorary Librarian :

Prof. Kali Prasad, M.A., LL.B.

Senior-most N. C. C. Officer :

Capt. A. L. Loomba, M.A.

Superintendent, Gandhi Memorial and Associated Hospitals

Col. R. K. Tandon, M.B.B.S., M.R.C.P.

Deputy Superintendent, Gandhi Memorial and Associated Hospitals

Shri P. K. P. Pillai, B.A., LL.B.

Canning College*Wardens*

Appointed from May 1, 1952

- Prof. Kali Prasad, M.A., LL.B.—(Butler Hostel).
 Dr. A. C. Chatterji, D.Sc., Dr. Ing.—(Subhas Hostel).
 Shri S. C. Varma, M.Sc.—(Tilak Hostel).
 Dr. K. C. Sarkar, M.A., Ph.D.—(Mahmudabad Hostel).
 Dr. G. S. Sharma, M.A., LL.M., J.S.D.—(Habibullah Hostel).
 Dr. Baljit Singh, M.A., LL.B., Ph.D., D.Litt.—(V.C.'s Lodge Hostel).
 Dr. S. N. Das Gupta, M.Sc., Ph.D., D.Sc., D. I. C.—(Narendra Deva Hostel).
 Shrimati P. Shukla, M.A., B.T. (Kailash Hostel).

Medical Officer :

Dr. B. N. Mehrotra, M.B.B.S.

Resident Medical Officer :

Dr. S. B. Singh, L.M.P., L.P.H.

Superintendent of Gardens and Grounds

The Head of the Department of Botany and Geology.

King George's Medical College

Principal :

Col. R. K. Tandon, M.B.B.S., M.R.C.P.

Wardens :

Appointed from May 2, 1952

Dr. S. S. Misra, M.D., M.R.C.P.—(Chakravarti Hostel).

Dr M. L. Gujral, M.B.B.S., M.R.C.P.—(Gokaran Nath Misra Hostel).

Dr. S. C. Misra, M.B.B.S., L.R.C.P., F.R.C.S.—(Sardar Patel Hostel).

Vacant at present—(Vijaya Lakshmi Hostel).

Isabella Thoburn College

Principal :

Kumari Sarah Chakko, M.A., M.Ed.

Chief Warden :

Kumari Shahadat Masih, M.A.

Mahila Vidyalaya College

Principal :

Kumari K. Sabarwal, M.A.

Warden :

Shrimati Janak Nandini Srivastava, M.A.

Lucknow Christian College

Principal :

Dr. C. M. Thacore, M.A., T.Dip., Ph.D., LL. D.

LUCKNOW

Wardens :

Shri K. Appasamy, M.A., B.D.—(C. L. Bare Hostel).

Shri E. H. Chowfin, M.Sc., L.T.—(Osmon Caldwell Hostel).

Kanyakubja College*Principal :*

Shri Madan Gopal Misra, M.Sc., B.T.

Warden :

Shri Karuna Shanker Misra, M.A.

Karamat Husain Muslim Girls' College*Principal :*

Kumari Roshan Jahan Begam, M.A.

Shia College*Principal :*

Khwaja Athar Husain, M.A.

Warden :

Shri Naqi Hassan Alley, M.A., LL.B., A.T.C.

Works Department

Superintendent of Works, Canning College and General Divisions

Dr. O. P. Gupta, Ph.D., F.S.S.

Superintendent of Works, K. G. Medical College Division

Col. R. K. Tandon, M.B.B.S., M.R.C.P.

University Civil Engineer

Vacant.

University Electrical Engineer

Shri S. C. Chakravarti, B.E.E., A.M.I.E. (Ind.), Chartered Electrical Engineer.

TEACHING STAFF**Faculty of Arts***English—*

Shri R. R. Sreshta, M.A., LL.B. (Cantab.) *Professor*.
 Dr. A. Vittal Rao, M.A. (Madras), Ph.D. (Lond.),
 Bar-at-Law, *Reader*.
 Kumari M. A. Dimmitt, B.A. (De Pauw), M.A.
 (Wellesley), *Reader* (I. T. C.)
 Shri A. T. Bhattacharya, M.A. (Luck.), *Reader*.
 Thirteen lecturers and eight teachers.

Philosophy—

Shri Kali Prasad, M.A., LL.B. (Alld.), *Professor*.
 Dr. Raj Narain, M.A., LL.B. (Luck.), Ph.D. (Columbia),
Reader.
 Dr. (Shrimati) Surama Dasgupta, M.A., Ph.D. (Cal.),
 Ph.D. (Cantab.), *Reader*.
 Dr. Kumari K. Sabarwal, M.A., *Reader* (M.V.C.)
 Four lecturers and seven teachers.

Education.—

Dr. Raghuvansh Bahadur Mathur, B.A. (Hons.) (Lond.)
 Ph.D. (Lond.), D.P.A. (Lond.), Cert. Ed. (Cantab)
Reader.
 Kumari D. Wilson, M.A., M. Ed. *Reader* (I.T.C.)
 Dr. (Kumari) Bina Roy, M.A., (Luck.) Ed. D. (Harv.)
Reader (I. T. C.)
 Six lecturers and eight teachers.

**History—*

Dr. Radha Kumud Mookerji, M.A., Ph.D. (Cal.), F.R.A.S.B.,
 Vidyavaibhava Sir Sayaji Rao Gaekwad Prizeman Itihasa-
 Siromani (Baroda), Premchand Roychand Scholar, *Emeritus*
Professor.
 Dr. K. R. Qanungo, M.A., Ph.D., *Professor*.

* NOTE—The Heads of the Departments of Arabic and Persian & Urdu will conduct seminar work with Honours and M.A. students of "Muslim India".

Dr. S. N. Das Gupta, M.A. (Lond.), F.R.H.S. (Lond.),
D.Litt. (Luck.), *Reader*.

Shri C. D. Chatterji, M.A. (Cal.), *Reader*.

Dr. N. L. Chatterji, M.A. (Alld.), Ph.D., D.Litt.
(Luck.), *Reader*.

Kumari S. E. Johnson, M.A. (Columbia), *Reader*
(I.T.C.)

Seven lecturers and five teachers.

Political Science—

Dr. B. M. Sharma, M.A., B.Sc. (Alld.), LL.B., Ph.D.,
D.Litt. (Luck.), *Professor*.

Dr. G. N. Dhawan, M.A. (Agra), M.A., LL.B., Ph.D.
(Luck.), *Reader*.

Dr. P. N. Masaldan, M.A., Ph.D. (Luck.), *Reader*.

Nine lecturers and three teachers.

Economics and Sociology—

Shri D. P. Mukerji, M.A. (Cal.), *Professor*.

Dr. Baljit Singh, M.A., LL.B., Ph.D., D.Litt., *Reader*.

Dr. Murli Dhar Joshi, B.A. (Hons.), M.A. (Alld.),
D.Litt. (Luck.), *Reader*.

Shri Prakash Chandra, M.A. (Luck.), *Reader*.

Eight lecturers and five teachers.

K. Institute of Sociology and Human Relations—

Dr. Radha Kamal Mukerjee, M.A., Ph.D., P.R.S.,
Director.

Shri Sushil Chandra, M.A., LL.B., *Reader*.

Four lecturers.

Anthropology—

Dr. D. N. Majumdar, M.A. (Cal.), Ph.D. (Cantab.),
F.R.A.I., F.N.I., Premchand Raychand Scholar,
Professor.

Two lecturers.

Arabic—

Dr. Mohammad Wahid Mirza, M.A. (Punj.), Ph.D.
(Lond.), *Reader*.

Two lecturers.

Persian and Urdu—

Syed Masud Hasan Rizavi, M.A. (Luck.), *Professor*.

Shri Ale Ahmad Suroor, M.A., *Reader*.

Six lecturers and one teacher.

Sanskrit and Prakrit Languages—

Shri K. A. Subramania Iyer, M.A. (Lond.), *Professor*.
 Dr. Kanti Chandra Pandey, M. A., M.O.L. (Punj.)
 Ph.D., D.Litt. (Luck.), *Reader*.
 Four lecturers and three teachers.

Hindi—

Dr. Din Dayal Gupta, M. A., LL.B. (Luck.), D.Litt.
 (Alld.), *Professor*.
 Dr. Kesri Narain Shukla, M.A., D.Litt. (Ben.), *Reader*.
 Dr. Bhagirath Mishra, M.A., Ph.D., *Reader*.
 Nine lecturers and three teachers.

Military Science—

Capt. A. L. Loomba, M.A., *Temp. Reader*.
 Two part-time lecturers.

Modern European Languages*French—*

Sri Roland Bourdariat, *Lecturer*.

German—

Dr. (Shrimati) Anita Kashyap, LL.D., *Lecturer*.

Russian—

Dr. Herbert V. Guenther, Ph.D., *Lecturer*.

Isabella Thoburn College*Euthenics—*

1. Shrimati Harriet F. Johnson, B.A. B.Sc., M.A., *Teacher*.
2. Srimati I.A. Jordan, M.A., B. Mua., *Teacher*.
3. Sri S.C. Roy, M. Sc., *Teacher*.
4. Srimati Mary A. Hulse, B.A. (U.S.A.), *Teacher*.
5. Sri M. N. Zutshi, M.Sc., (*Teacher in Physics*).

Geography—

1. Kumari R. Mukerji, M.A., *Teacher (on leave)*.
2. Kumari Sumitra Benoit, M.A. *Temp. Teacher*,

Faculty of Science*Physics—*

- Dr. P. N. Sharma, D.Sc., *Professor*.
 Dr. B. N. Srivastava, D.Sc, F.N.I., *Reader*.
 Dr. S.N. Ghoshal, M.Sc., Ph.D., *Reader*.
 Shri S. K. Dutt, M.Sc., (Luck.), *Reader*.
 Dr. S. B. L. Mathur, D.Sc. (Luck.), *Temp. Reader*.
 Thirteen lecturers and seven teachers.

Chemistry—

- Dr. A. C. Chatterji, D.Sc., (Alld.), Dr. Ing. (Berlin),
Professor.
 Shri M. Raman Nayar, B.A. (Madras), A.I.I.Sc.
 (Bang.), *Reader*.
 Dr. A. B. Sen, M.Sc., Ph.D. (Luck.), *Reader*.
 Dr. Soorya Narayan Shukla, M.Sc. (Luck.), Ph.D.
 (Lond.), A.R.I.C., *Reader*.
 Shri S. C. Varma, M.Sc. (Luck.), *Reader*.
 Dr. (Kumari) M. Wallace, B. A. (Minnesota), M.A.
 (Columbia), Ph.D., *Reader* (I.T.C.)
 Fifteen lecturers and eleven teachers.

Botany—

- Dr. S. N. Das Gupta, M.Sc. (Cal.), Ph.D. (Lond.),
 D.Sc. (Lond.), D.I.C., *Professor*.
 Dr. S. K. Pande, M.Sc. (Punj.), D.Sc. (Luck.), *Reader*.
 Dr. A. Ramachandra Rao, D.Sc. (Luck.), *Reader*.
 Dr. G.S. Varma, M.Sc., Ph.D. (Luck.), F.B.S., F.L.S.
 (Lond.), F.R.H.S., *Reader*.
 Dr. S. C. Agarwal, M.Sc., Ph.D., *Reader*.
 Seven lecturers and seven teachers.

Geology—

- Shri S. R. Narayana Rao, M.A., F.G.S, *Professor*.
 Dr. Ramesh Chandra Misra, M.Sc. (Banaras), Ph.D.
 (Luck.), F.N.A.Sc., F.G.M.S., M.M.G.I., *Reader*.
 Four lecturers.

Zoology—

- Dr. Govind Singh Thapar, M.Sc. (Punj.), Ph.D.
 (Lond.), F.N.I., F.A.Sc., F.Z.S.I., *Professor*.
 Dr. Makund Behari Lal, D.Sc. (Luck.), D.Sc. (Edin.),
 F.A.S.C., *Reader*.
 Dr. Jagdishwari Dayal, D.Sc. (Luck.), *Reader*.
 Dr. S. M. Das, D.Sc. (Luck.), F.Z.S., *Lecturer* (Temp.
Reader).
 Six lecturers and seven teachers.

Mathematics and Statistics—

- Dr. Avadesh Narayan Singh, M.Sc. (Banaras), D.Sc. (Cal.), *Professor. (On deputation).*
 Dr. Rama Dhar Misra, M.A. (Luck.), Ph.D. (Edin.), *Reader. (Offg. Professor).*
 Dr. Ram Ballabh, M.Sc., Ph.D. (Luck.), *Reader.*
 Dr. V. N. Patankar, M.A., Ph.D., *Reader in Statistics.*
 Dr. S. C. Mitra, Ph.D., *Reader.*
 Fifteen lecturers and eight teachers.

Faculty of Medicine*Anatomy—*

- Dr. Dharam Narayan, M.B.B.S., M.S. (Luck.), *Professor.*
 Dr. Harish Chandra Varma, M.B.B.S., M.S. (Luck.), *Reader.*
 Six lecturers and six demonstrators.

Physiology—

- Dr. S. N. Mathur, M.B.B.S. (Alld.), Ph.D. (Lond.), *Professor.*
 Dr. R. C. Shukla, M.B.B.S., M.D., *Reader.*
 Dr. B. K. Malaviya, M.Sc., Ph.D. (Alld.), *Reader in Biochemistry.*
 Four lecturers and eight demonstrators.

Pharmacology—

- Dr. M. L. Gujral, M.B.B.S., M.R.C.P. (Lond.), *Professor.*
 Dr. N. K. Chowdhury, M.B.B.S., (Pat.), D.T.M. (Cal.), M.D. (Pat.), Ph.D. (Edin.), *Reader.*
 Dr. Ram Saran Srivatsava, M.Sc., Ph.D. (Lond.), A.R.I.C., *Reader.*
 One lecturer, four Demonstrators and one Pharmaceutical Chemist.

Pathology—

- Dr. V. S. Mangalik, M.D., D.C.P. (Lond.), *Professor.*
 Dr. Shanti Prakash Gupta, B.Sc. (Banaras), M.D. (Path.), M.D. (Med.) (Luck.), Dip. Bact. (Lond.), *Reader.*
 Dr. N. P. Gupta, M.D., Dip. Bact. (Lond.), *Reader.*
 Dr. R. M. L. Mehrotra, M.D., *Lecturer (Temp. Reader).*
 Two lecturers and five demonstrators.

Forensic Medicine—

Dr. C. P. Tandon, M. D., *Professor.*

Social Medicine and Public Health—

Dr. B. S. Yajnik, M.B.B.S., D.P.H., *Part-time Professor.*

Dr. B. G. Prasad, D.P.H., M.D., *Part-time Demonstrator.*

Medicine—

Rai Bahadur Dr. Hargovind Sahai, M.B.B.S. (Punj.),
Emeritus Professor.

Dr. Bir Bhan Bhatia, M.D. (Luck.), M.R.C.P. (Lond.),
Professor.

Dr. S. S. Misra, M.D. (Hons.) (Luck.), M.R.C.P.
(Lond.), *Professor of Clinical Medicine.*

Dr. N. N. Gupta, M.B.B.S., M.D. (Med.), M.D. (Path.),
Lecturer.

Dr. D. N. Sharma, M.D., *Part-time Reader (B.H.).*

Dr. Kul Bhushan Kunwar, M.B.B.S., M.D. (Path.),
M.D. (Med.), M.D. (Pharm.), *Reader.*

Four lecturers, two part-time lecturers and one teacher.

Surgery—

Dr. S. C. Misra, M.B.B.S., L.R.C.P., F.R.C.S. (Eng.),
Professor of Surgery.

Dr. Rajendra Vir Singh, M.B.B.S., M.S., F.R.C.S.,
Professor of Clinical Surgery.

Dr. Pritam Das, M.B.B.S., M.S., F.R.C.S., *Reader.*

Dr. Tara Chandra, M.B.B.S., M.S., F.R.C.S. (Eng.),
Reader.

Dr. K. R. Chowdhury, F.R.C.S., D.O., D.O.M.S.,
L.R.C.P., M.R.C.S., *Part-time Reader (B.H.).*

Two lecturers, and three part-time lecturers.

Ophthalmology—

Dr. C. P. Misra, L.M.S. (Punj.) *Emeritus Professor.*

Dr. Satyapal Gupta, M.B.B.S. (Luck.), F.R.C.S. (Edin.)
D.O.M.S., (Lond.), *Professor.*

Capt. V. N. Khanna, M.B.B.S., D.T.M., D.O.,
D.O. M.S., *Reader.*

Dr. Hans Raj, M.B.B.S., L.O., *Part-time Reader (B.H.).*

One lecturer.

Obstetrics and Gynaecology—

Dr. (Kumari) A. D. Engineer, M.B.B.S., M.D.,
M.R.C.O.G., & F.R.C.S., *Professor.*

- Dr. (Kumari) Devaki Kuty, M.B.B.S., D.G.O.,
M.R.C.O.G. (Lond.), *Reader*.
Dr. (Srimati) Hem Mangalik-Sanwal, M.B.B.S. (Punj.),
Lecturer (*Temp. Reader*).
One temporary lecturer.

Radiology—

- Dr. C. Chatterji, B.Sc. (Alld.), M.B.B.S. (Luck.),
D.M.R (Lond.), *Reader*.
One lecturer and two part-time lecturers.

Tuberculosis—

- Dr. R. N. Tandon, M.B.B.S., M.R.C.P., T.D.D.,
D.M.R.E., *Part-time Reader*.
One lecturer.

Dentistry—

- Vacant*.....*Reader*.
Three lecturers and two demonstrators.

Orthopaedics—

- Dr. B. N. Sinha, M.B.B.S. (Luck.), M.R.C.S., L.R.C.P.
(Lond.), F.R.C.S. (Eng.), F.I.C.S. (Chicago), *Reader*.
One part-time lecturer.

Diseases of Ear, Nose and Throat—

- Dr. R. N. Misra, M.B.B.S., M.S. (Luck.), D.L.O.,
F.R.C.S. (Eng.), *Reader*.
One part-time lecturer.

Department of Ayurvedic

- Shri V. N. Dwivedi, Ayurveda Shastracharya, Sahitya-
Allankar, B.A., B.I.M. *Reader in Charak Sahitya*.
Two lecturers.

Faculty of Law

- Dr. R.U. Singh, M.A., LL.B. (Alld.), S.J.D. (Harvard),
M.P., *Professor*.
Shri Shiva Shankar Nigam, M.Sc., LL.M., Advocate,
Reader.
Dr. G. S. Sharma, M.A., LL.M., J.S.D. (Yale), *Reader*.
.....*Reader*.
Dr. B. K. Gupta, B.Sc., LL.M., J.S.D., (Yale), *Lecturer*
(*Offg. Reader*).
Five lecturers.

Honorary Readers—

R. B. Ram Prasad Verma, B.A., LL.B., Advocate.
 Ch. Ram Bharose Lal, B.A., B.Sc., LL.B., Advocate.
 Shri G. G. Chatterji, B.A., LL.B., Advocate.

Faculty of Commerce

Shri B. N. Das Gupta, B.A. (Cal.), A.S.A.A. (Lond.)
 F.C.A., Chartered Accountant, Incorporated Accountant, *Professor (on deputation)*.
 Dr. K. C. Sarkar, M.A., Ph.D. (Luck.), *Reader. (Offg. Professor)*.
 Dr. Shyam Lal Sharma, M.Com., Ph.D., *Lecturer. (Offg. Reader)*.
 Six lecturers.

Applied Economics—

Shri B. N. Chatterji, M.A., B.L., (Cal.), *Professor*.
 Dr. Om Prasad Gupta, Ph.D. (Lond.), F.S.S., *Reader*.
 Two lecturers.

Oriental Department*Arabic and Persian Section—*

Maulvi Syed Ali Naqi Naqvi, Fazil-i-Adab, Mumtazul-Afzil, Sadrul-Afazil, *Maulvi*.
 Dr. Mujtaba Hasan Kamoopuri, Fazil (Alld.), Sadrul-Afazil, Ph.D. (Ali Azhar), *Maulvi*.
 Shri Ejaz Ahmad, M.A., Third Maulvi (Temp.)

Sanskrit Section—

Pandit Kedar Nath Ojha, *Pandit*.
 Pandit Rudra Prasad Awasthi, Vyakaranacharya, *Pandit*.
 Shiva Sheikhar Misra, M.A., *Teacher in English*.

Constitution of the University

The officers of the University are the Chancellor, the Vice-Chancellor, the Treasurer, the Proctor, the Registrar, the Librarian, the Deans of the Faculties, the Principal of King George's Medical College, the Principal of Isabella Thoburn College, the Principal of Mahila Vidyalaya College and the Principal of Lucknow Christian College. The Vice-Chancellor is a paid whole-time officer of the University and is the principal executive and academic officer of the University.

The authorities of the University are the following: (1) The Court which consists of about 325 members. (2) The Executive Council which is the Executive Body of the University. (3) The Academic Council which is the Academic Body of the University and is responsible for the maintenance of standards of teaching and examination in the University. (4) The Committee of Reference which deals with items of new expenditure. (5) Faculties which have charge of the courses of study and the teaching and research work in the subjects assigned to each Faculty.

Number of Students in the University under Different Faculties during 1951-52

Faculty of Arts	...	...	3,125 including 266 students in Mahila Vidyalaya, 29 of K. K. College and 137 in Isabella Thoburn College.
Faculty of Science	...	...	1,499 including 147 students of Christian College, 44 Shia College, 25 I. T. College, and 135 of K. K. College.
Faculty of Medicine	...	...	815
Faculty of Law	...	...	753
Faculty of Commerce	...	...	611
M.Ed.	...	...	29
L.T.	...	...	65 (including 15 of I.T. College).
Diplomas in Arabic	}	...	90
Diplomas in Persian		...	21
Diploma in Sanskrit		...	63
French Class	...	...	18
German Class	...	...	12
Russian Class	...	...	12

Number of Successful Candidates at the Different Examinations in 1952

Arts

B.A. (Pass).....	758	B.A. (Honours).....	25
M.A. and M.A. Part II.....	308		
L.T.....	54		
D.Litt.....	0	Ph.D.....	3
		D.F.A.	0
		D.P.A.	52
		D.S.S.	8

LUCKNOW

Science

B.Sc. (Pass)	297	B.Sc. (Honours).....	13	M.Sc. and M.Sc. Part II.....	115
Ph.D.....	0				

Medicine (April).

M.D.....	12	M.S	12	M.B., B.S.....	67
----------	----	-----------	----	----------------	----

Law

LL.B.....	192
LL.M.....	1

Commerce

B.Com.....	150	M.Com.....	69
Ph.D.....	0		

Laryngology and Otology

Diploma.....	1
--------------	---

Diploma in Arabic

Fazil-i-Adab.....	8	Alim.....	3	Fazil-i-Tafsir.....	23
-------------------	---	-----------	---	---------------------	----

Diploma in Persian

Dabir-i-Mahir.....	3	Dabir-i-Kamil.....	11
--------------------	---	--------------------	----

Diploma in Sanskrit

Shastri.....	3	Acharya.....	4.
--------------	---	--------------	----

Library, Museums, Laboratories, etc.

The University Tagore Library contains 1,20,002 volumes excluding the volumes in the Library of the King George's Medical College, Lucknow, and 2,726 volumes of the Bonarjee Students' Library, a Library composed mainly of text and recommended books and the membership of which is confined to poor students of the University. Departmental Libraries are also separately maintained and placed under the administrative control of the several heads of departments.

In addition to the Museums and Laboratories in the Faculty of Medicine, there is a Museum in each of the Departments of Zoology, Botany and Commerce ; and there is a laboratory in each of the Departments of Physics, Chemistry, Botany and Zoology. There is also a Statistical laboratory in the Department of Economics and Sociology. A separate building has been constructed for the Psychological Laboratory and it has been equipped with up-to-date apparatus.

Scholarships, Medals and Fellowships

The following are the University and Endowed Scholarships and Medals granted to distinguished students of the University under prescribed conditions. The University grants eight scholarships, each of Rs. 15 per month, exclusively to women.

University Scholarships

In the Faculty of Arts and Science—

1. Seven M.A. scholarships at Rs. 30 per month each.
2. Seven M.Sc. scholarships at Rs. 30 per month each.
3. (i) Four Scholarships of Rs. 20 per mensem each for award to students taking the B.A. Pass or Hons. course tenable for two or three years according as they are awarded to Pass or Honours Students.
- (ii) Four Scholarships of Rs. 20 per mensem each for award to students taking B.Sc. Pass or Hons. course tenable for two or three years according as they are awarded to Pass or Honours students.
4. (i) One Scholarship of Rs. 20 per mensem for III year B.A. Hons. tenable for 12 months.
- (ii) One Scholarship of Rs. 20 per mensem for III year B.Sc. Hons. tenable for 12 months.

In the Faculty of Medicine—

Eight scholarships of Rs. 16 per month for I and II year students.

Twelve scholarships of Rs. 20 per month for III, IV and V year students.

One scholarship of Rs. 16 per month for I and II year B.D.S. students.

One scholarship of Rs. 20 per month for III and IV year B.D.S. students.

In the Faculty of Law—

One scholarship of Rs. 16 per month for LL.B.

Two scholarships of Rs. 30 per month for LL.M.

In the Faculty of Commerce—

Two scholarships of Rs. 16 per month each for B.Com.

Two scholarships of Rs. 30 per month each for M.Com.

Endowed Scholarships and Medals

Hewett Sir Haram Singh Gold Medal: Peary Lal Chak Medal: Pandit Suraj Narain Bahadur Gold Medal: Hamid Medal: Gopal Chandra Mukerji Memorial Medal: Raja Sir Harnam Singh-Sir Harcourt Buttler, Raja Sir Harnam Singh-Sir Ludovic Porter, and Raja Sir Harnam Singh-Raja Sir Mohammad Ali Mohammad Khan Medals: Pandit Debi Sahai Misra Gold Medals: R. B. Chaubey Shambhu Nath Misra Memorial Gold Medal: Dr. Chakravarti Medal for Service: Bhasker Atma Ram Deodhar Memorial Medal: Ohdedar Memorial Gold Medal: Bali Handoo Prize Medal-Bonarjee Research Prize of Rs. 200—Ruchi Ram Sahai Research Prize in Botany: Raja Shanker Sahai of Maurawan Medal: The Said-uz-zafar Khan Prizes for Anatomical Dissection to commemorate the Silver Jubilee of H. M. King George V—Eduljee Hormusha Parkash Medal: Wilhelmina-Buck Memorial Medal: Vangala Narasamma Guru Memorial Medal: Rameshwar Gurtu, Triloki Nath Gurtu and Anandi Lall Gurtu Memorial Medals: Ram Sahai Nigam Medal: The Ward Memorial Vidyant Medal: Shitla Prasad Memorial Gold Medal: R. B. Trilok Nath Gold Medal: Pt. S. N. Mushran Gold Medal: Captain Kunwar Indrajit Singh Scholarship: Gopi Nath Memorial Gold Medal: Ganga Devi Memorial Gold Medal: R. B. Shankar Dayal Nigar Gold Medal: Dr. Cameron Debi Dayal Misra Gold Medal: Sir Bisheswar Nath Gold Medal: Kunwar Bam Bahadur Shah Gold Medal: Kailash Nath Bhargava Gold Medal: Dr. Radha Kumud Mookerji Gold Medal: N. N. Sen Gupta Memorial Gold Medal: Sir Srinivasa Varadhachariar Gold Medal: Chandra Mohini: Kaul Memorial Gold Medal: Dr. V. S. Ram Parliament Prize:

Sugga Bibi Medal: Bishambar Nath Ghai Memorial Gold Medal: Jagdish Prasad Legal Research Gold Medal: Dr. Radha Kumud: Mookerji Scholarships: Saraswati Dalmia Scholarships: R. B. G. M. Modi Scholarship. Canning College Gold Medal: White Memorial Gold Medal: Maharaja of Jhallawar Gold Medal: Empress Victoria Gold Medal: Pirie Memorial Gold Medal: Merle Curti Gold Medal: Acharya Narendra Devamadhav Ram Gold Medal: Shri Kailashwati Memorial Gold Medal: Pandit Jagmohan Nath Chak Memorial Gold Medal: Seth Ram Das and Seth Ram Prasad Gold Medal: The Silver Jubilee Gold Medal: MacMahon Gold Medal: Dr. Rai Rajeshwar Bali Gold Medal: Pt. Tika Ram Misra Gold Medal: Chaubey Mukta Prasad Gold Medal: Rajendra Nath Sanyal Gold Medal: Kumari Vimla Puri Gold Medal: Lala Shanker Sahai-Har Sahai Gold Medal: Pandit Kishan Narain Vantoo-Pandit Maharaj Kishan Handoo Gold Medal: Swami Rama Tirtha Gold Medal: Munnilal Hiralal Medal: Brij Narain Chakbast Memorial Gold Medal: Jai Krishna Tandon Gold Medal: Ward Memorial Gold Medal: Pandit Jagpal Krishna Gold Medal: Chauthi Devi Mohanlal Lahoti Gold Medal: Birbal Sahni Memorial Gold Medal: Gopaldas Memorial Medal: Doctor Indrajit Singh Gold Medal: Prof. B. G. S. Acharya Memorial Prize: Dr. Aslam's Prize in Prosthetics.

Fellowships

Fellowships are assigned to the Faculties in the following manner:

Faculty of Arts-5, Faculty of Science-5, Faculty of Medicine-1, Faculty of Law-1, Faculty of Commerce-1 and an additional Fellowship is awarded in any Faculty to a candidate who may be specially recommended for the purpose. The value of each Fellowship is Rs. 75 per mensem in the Faculty of Arts, Science and Law, and Rs. 100 per mensem in the Faculty of Medicine; and such Fellowships are ordinarily tenable for 21 months, *i.e.*, from the 1st of August to the 30th of April of the year next after the succeeding year in the Faculties of Arts, Science, Commerce and Law and 12 months, *i.e.*, from the 1st of October to 30th September, in the Faculty of Medicine.

Provision for Research Publication and Extension Work

For the encouragement of advanced study and research work Fellowships have been instituted in the University as mentioned above,

There is one Bonarjee Prize of Rs. 200 per mensem as mentioned above for the best research production of the year, open both for the M.A. and M.Sc. There are prizes also for Ph.D., D.Sc., and D. Litt., theses.

Arrangements are made for delivery of a number of popular lectures in the course of the year such as General Extension Lectures, Lectures organized by the Vice-Chancellor, Lectures organized under the auspices of the Lucknow University Union, and lectures organized during the Convocation Week.

Military Training

The University has a Battalion of two companies of the National Cadet Corps. The authorised strength of the Bn. is 10 Officers and 315 Cadets including Cadet N.C.Os. The strength of the Bn. at the present moment is 9 Officers, 2 J.C.Os., 5 N.C.Os., and 308 Cadets including N.C.Os. Cadets are being enrolled to complete the authorised strength.

Arms, Equipment and Clothing.—The Arms Equipment of 'B' Coy. old U.O.T.C. unit, have been taken over by this N.C.C. The authorised scale of these things is being completed by Government from time to time.

Training N.C.C.—(1) The Central Government have posted 1 Officer, 1 J.C.O. and 4 N.C.Os. as instructional staff to this Unit.

(2) An annual training camp of 15 days' duration is permitted during the winter vacation and a cadre camp of one month's duration for N. C. Os. during the summer vacation.

Associations in the University

There is a University Union. All students enrolled in the Faculties of Arts, Science, Commerce and Law are *ipso facto* members of the Union. The Union holds debates, maintains a Library, Reading and Writing Rooms and Refreshment Room and is intended to promote corporate and social life generally. In addition to the Union, many societies and associations exist in various departments in the University and in constituent Colleges, such as, English Literary Society, Council of Educational Research, Ancient Indian Historical Association, Modern Indian History Post-graduate Society, B.A., Hons. Modern

Indian History Society, European History Study Circle, Parliament, Post-graduate Political Science Association, Sociological Association, Culture Centre in the Economics Department, Islamic Studies Association, Bazm-e-Adab, Janavardhini Sahbha, Sahitya-Fasthi, Kavi Sammelan, Science Association, Botany Club, Geologic Club, Old Boys' Association, Zoological Society, Physics Society, Chemical Association, Law Society, Post-graduate Law Association, Commerce Association, Anatomical Society, Growth Study Centre in the Department of Anatomy, Physiological Society, Hostel Unions, Lajnatul Adab, Clinical Society, Dramatic Associations, Philosophical Association, Music Society, etc.

Among the Debates organized are All-India Inter-University Sanskrit Debates, Inter-Collegiate Debates in History, Sanskrit and Hindi, All-India University Law Debate and Moot Court.

Provident Fund

There is a Provident Fund to which contributions are made by a member drawing at least Rs. 40 per mensem, at the rate of 8 per cent of his salary, the University contributing at the rate of 12 per cent in the case of employees drawing not more than Rs. 500 per mensem and 10 per cent in the case of employees drawing not more than Rs. 1,000 but above Rs. 500 per mensem and 8 per cent in the case of employees drawing more than Rs. 1,000 per mensem. The interest on both of these contributions accrues to the account of the subscriber.

Women's Education

There are three separate Colleges for women where they can study for B.A. and B.Sc. Examinations and also for Licentiate in Teaching. There were 472 students during 1951-52.

There are also separate hostels for women students.

Provision for safeguarding Health, Medical Inspection, Discipline, etc.

Before admission to a hostel every student has to produce a certificate from the Medical Officer of the University or from a registered Medical Practitioner that he is physically fit for residence and every student of the University is physically examined at least once a year by the Medical Officer. Dispensaries

and Medical Officers are attached to the Hostel and College.

There is a whole-time Director of Physical Instruction to look after the physical training of students. A system of compulsory physical training for all resident students has been introduced from the session 1936-37 under the expert supervision of the Director.

Breaches of Hostel regulations are dealt with by the Warden, of College regulations by the Principal, of University regulations by the Proctor who is expected to attend to the misbehaviour or improper conduct elsewhere than within the compounds of the Colleges and Hostels.

Admission to the University Courses of Study, Degrees and Examinations

The University confers the Bachelor's Degree (Pass and Honours) in Arts and the Master's Degree in Arts, Education and Social Technique; in Science the Bachelor's Degree (Pass and Honours) and the Master's Degree. The Professional Degrees and Diplomas are Bachelor of Laws, Master of Laws, Bachelor of Commerce, Master of Commerce, Bachelor of Medicine and Bachelor of Surgery, Bachelor of Dental Surgery, Master of Surgery, Diploma in Medical Radiology and Electricity, Diploma in Laryngology and Otology, Diploma in Gynaecology and Obstetrics, Diploma in Clinical Pathology, Diploma in Tuberculous Diseases, Diploma in Ophthalmic Medicine and Surgery, Diploma in Public Health (suspended for the present), Licentiate in Teaching, Diplomas in Arabic, Persian and Sanskrit, Diploma in Military Science, Diploma in Psychology, (suspended for the present), Diplomas in French, German and Russian, Diploma in Public Administration, Diploma in Foreign Affairs and Diplomacy and Diploma in Archaeology. The following are the Doctorate Degrees: Ph.D., D.Litt., D.Sc., M.D., LL.D.

Admission to Courses of Study

Admission to a course of study for a Bachelor's Degree is confined to those who have passed either the Intermediate Examination of a recognised Indian University or of the Board of High School and Intermediate Education of U. P. or of Rajasthan, Central India and Gwalior or the Intermediate Examination of the Board of Intermediate and Secondary Education,

Dacca, or the Cambridge Higher School Certificate Examination, or the Previous Examination of Cambridge University, or the Responsions of the Oxford University or the Intermediate Examination in Science of the Rangoon University. There is no admission examination instituted by this University except for the Medical Faculty. Special provision is made for admission of Teachers of local colleges and schools to the Degree Examinations in the Faculty of Arts, without preceding attendance at the University. The Pre-Engineering Examinations conducted by the Pre-Engineering Examination Board, constituted by the Government of India, have been recognised as equivalent to the Intermediate Science Examination for purposes of admission to this University.

Courses of Study, Degrees and Examinations in Arts

1. Courses of study for the B.A. Pass degree shall extend over a period of two academic years.

2. Every candidate shall be required to pass in a group of three subjects and General English. The following groups shall be permitted:—

(a) (i) Classical Language, or Urdu or Hindi; (ii) History; and (iii) Philosophy, or Political Science, or Economics, or Anthropology, or Education. (b) (i) English; (ii) A Classical Language, or Urdu, or Hindi, or Education; and (iii) Philosophy, or History or Political Science, or Mathematics. (c) (i) English; (ii) Economics, or Anthropology, or Philosophy; and (iii) Mathematics, or Political Science, or a Classical Language, or Urdu, or Education, or Hindi. (d) (i) English; (ii) History, or Education; and (iii) Economics, or Anthropology, or Political Science, or Philosophy. (e) (i) History; (ii) Economics, or Anthropology; and (iii) Political Science, or Mathematics. (f) (i) Philosophy; (ii) Political Science, or Education; and (iii) Economics, or Anthropology, or History. (g) (i) Philosophy; (ii) Economics, or Anthropology; and (iii) Mathematics, or History. (h) (i) English; (ii) Philosophy; and (iii) Economics, or Anthropology, or Education. (i) (i) English, or History, or Economics, or Anthropology, or Philosophy, or Political Science; (ii) Hindi or Urdu; (iii) Arabic, or Persian, or Sanskrit. (j) Military Science may be offered in place of any one subject included in any of the groups (a)—(h). (k) History and Culture of Asian People may be offered in place of any one subject included in any of the groups (a)—(h). Provided that it

cannot be combined with a Classical and Modern Indian Language. (l) (i) English ; (ii) Geography ; and (iii) Philosophy, or History, or Economics, or Anthropology, or Political Science, or Hindi. (m) (i) Statistics, (ii) Mathematics ; and (iii) Philosophy, or Economics, or Anthropology, or English, or Political Science. (n) Anthropology may be offered in place of any one subject included in any of the groups (a), (c) to (m). (o) Psychology may be offered as an alternative to Education included in any of the groups (a) to (h).

3. Students who are reading for a Pass degree may, on the recommendation of the Head of the Department, be transferred by the Deans to an Honours course at any time up to the end of the first year of study.

4. In order to pass, candidates must obtain 33 per cent of the total marks in each subject : 1st Class 60 per cent ; 2nd Class 48 per cent ; 3rd Class 36 per cent.

Bachelor of Arts (Honours)

Ordinances.

1. There shall be the following Honours Schools in the Faculty :—

- (i) English.
- (ii) Philosophy.
- (iii) European History.
- (iv) Indian History.
- (v) Political Science.
- (vi) Economics and Sociology.
- (vii) Arabic.
- (viii) Persian.
- (ix) Sanskrit and Prakrit Languages.
- (x) Mathematics.
- (xi) Hindi.
- (xii) Urdu with Persian.
- (xiii) Islamic Culture and Civilisation.
- (xiv) Sanskrit Culture and Civilisation.

2. Students shall be admitted to the Honours course in the beginning provisionally, but they will be selected on the result of an examination (written and oral) to be conducted by the Heads of the Departments concerned at the beginning of the second term. Only those students who get 50 per cent or above marks shall be allowed to continue in the Honours course.

3. Courses of study for the degree of B.A. Honours shall extend over a period of three academic years and there shall be an examination at the end of the third academic year. Students will not be permitted to enter for the examination for Honours later than the end of the fourth year from their admission to the B.A. course.

4. Every candidate for the degree of B.A. Honours shall, in addition to his Honours subject, be required to pass an examination in each of two subsidiary subjects and General English. The subsidiary subjects which may be taken with a particular principal subject will be determined by the Dean, subject to the approval of the Academic Council.

5. The examination in the subsidiary subjects may be taken at the end of the second year, and shall be identical with the B.A. Pass degree examination in those subjects.

6. Candidates who pass the examination shall be classified in three divisions :—

First Division 60 per cent ; Second Division 48 per cent ;
Third Division 36 per cent ; Pass 30 per cent.

Examination in General English

The examination in General English for the B.A. and B.Sc. (Pass and Honours) and B.Com. candidates shall be the same as Paper I and Paper II of (*English General Section*) as detailed in the course of study in English for the B.A. (Pass) examination.

Master of Arts

(For Honours Graduates)

1. Admission to the courses for the degree of Master of Arts shall be restricted to (a) candidates who have graduated with Honours at this University and (b) graduates with Honours of any other recognised University provided that the regular courses for their Honours degree extended over three academic years, and that the applications of these candidates be approved by the Academic Council.

2. A candidate may not in less than one year after passing the B.A. Honours examination, present himself for the M.A. degree examination in the subject in which he took Honours,

(For Pass Graduates)

The degree of Master of Arts shall be conferred on graduates who have pursued a regular course of study in the University for not less than two academic years since taking their Bachelor's degree, and passed the required examination.

The examination shall consist of two Parts, Part I and Part II, held at the end of the first and second years respectively.

Part II of the examination in any subject shall be open to students who have passed Part I in that subject.

Divisions shall be awarded on the combined results of the examination in Part I and Part II.

The examination for the degree of Master of Arts shall be by means of papers, provided that in cases so specified a thesis may be offered in lieu of one of the papers or in lieu of two papers (Papers III and IV) in Political Science and that if the examiners of the thesis consider it necessary, the candidate who offers the thesis may be required to undergo a *viva voce* test on the subject of the thesis.

Candidates shall also be required to undergo a *viva voce* test in the final examination except in the case of Mathematics.

Names of successful candidates shall be arranged in three divisions :—

- (i) First Division 60 per cent ; (ii) Second Division 48 per cent ; (iii) Third Division 36 per cent.

The subject of the examination shall be one of the following :—

- (i) A Language, (ii) Mental and Moral Science, (iii) History, (iv) Mathematics, (v) Economics, (vi) Political Science, (vii) Islamic Culture and Civilization.

Doctor of Philosophy

A candidate for the degree of Ph.D. shall have taken the M.A. degree of this University or of any approved University.

Before a candidate is permitted to supplicate for the degree of Ph.D. he must be certified by the Head of the Department and

the Dean to have been engaged in his research work for not less than two academic sessions or six terms.

The dissertation submitted for the degree of Ph.D. shall be on some branch of one of the following subjects :—(i) Philosophy. (ii) History. (iii) Economics and Sociology. (iv) Mathematics. (v) English. (vi) Sanskrit. (vii) Arabic. (viii) Persian. (ix) Political Science. (x) Urdu. (xi) Hindi. (xii) Statistics.

Doctor of Literature

1. Applicants for the degree of Doctor of Literature shall have taken the Ph.D. degree of the Lucknow University or any other approved University not less than five years before submitting their work for the D.Litt. degree.

Provided that a candidate who has not taken the Ph.D. degree from this University shall have carried on research for not less than three terms under the supervision of the University.

Provided further that the period of five years may be reduced in the case of Ph.D.'s who are first class M.A.'s of more than 10 years' standing, with the approval of the Head of the Department and the Dean of the Faculty concerned.

Doctor of Literature (Honoris Causa)

The degree of Doctor of Literature may be conferred as an honorary degree in accordance with the provisions of Statute 14, upon any person, on the ground that he is, by reason of eminent position and attainments or by virtue of his contribution to the cause of learning, a fit and proper person to receive such a degree.

Diploma in Psychology

The course shall spread over one full session comprising three terms.

Qualifications for Entrants.—The course is open to the following :—

- (i) Graduates ; (ii) Holders of Diploma or Licence in Teaching ; (iii) Those who have passed the Intermediate Examination and hold Certificate in Teaching.

Examination

The Examination shall consist of two parts : Theoretical and Practical. There shall be three written papers and one practical examination. A thesis, however, may, with the permission of the Head of the Department, be submitted on an approved topic in lieu of one of the papers.

Master in Education

1. Admission to the courses for the Degree of Master in Education shall be restricted to the graduates of the Lucknow University or any other recognised University.

2. The courses of study shall extend over a period of two academic years.

3. Graduates possessing a Degree or Diploma in Teaching or an equivalent qualification from a recognised University (B.Ed., B.T., L.T.), will be exempted from the first year's course. The examination for the second year's course shall consist of five papers and practical work.

Diploma Examinations

Diplomas in Arabic and Persian.—Students prepared by the University for these Diplomas and Teachers of recognised local educational institutions are admitted to the Diploma Examination in Arabic and Persian.

There are three Diploma Examinations in Arabic: (i) Maulvi, (ii) Alim, and (iii) Fazil; and three Diploma Examinations in Persian: (i) Dabir, (ii) Dabir-i-Mahir, and (iii) Dabir-i-Kamil. The Maulvi and Dabir Examinations have been suspended for the time being. The courses of the Alim, Fazil, Dabir-i-Mahir and Dabir-i-Kamil Examinations are of one year's duration. Text-books are prescribed and question papers set on religious subjects. The Fazil course is one of specialised study in one of six prescribed groups of subjects. All the subjects prescribed for other examinations are compulsory.

The medium of examination is Urdu, but questions may be set and answers required in Arabic and Persian. 36 per cent in the aggregate and 33 per cent in each subject are the minima for a pass. 60 per cent and upwards will entitle a candidate to be

placed in the First Division and 48 per cent or more will place him in the Second Division.

Diploma in Sanskrit.—Students prepared by the University and Teachers of local schools, Patshalas or other recognised public educational institutions are admitted to the examination in Sanskrit.

There are two Diploma Examinations in Sanskrit: (i) Shastri, and (ii) Acharya.

The Acharya Examination consists of two Parts—Part I and Part II.

The Shastri course aims at giving the students a general education in Sanskrit learning, while the Acharya course aims at specialisation in one or more branches of Sanskrit Learning.

The medium of examination is Sanskrit. Some questions may be set and answers required in Hindi. 36 per cent in the aggregate and 33 per cent in each subject are the minima for a pass; 60 per cent and upwards will entitle a candidate to be placed in the First Division and 48 per cent and upwards will place him in the Second Division.

Diploma in Public Administration.—The course will extend over one full session for graduates and two full sessions for undergraduates. For the one year course there will be seven papers and for the two years course there will be an additional three compulsory papers. The examination consists of written papers as well as a practical test. The teaching of this Diploma course is arranged either in the afternoons or evenings or mornings as may be found necessary and convenient.

Diplomas in French, German and Russian.—The diploma courses in French, German and Russian extend over two years and consist of six periods of teaching per week in each year. There shall be one examination at the end of the first year and a final examination conducted at the end of the second year which shall consist of written and oral tests. Those who have passed the Certificate of Proficiency examination of the University in French or German or Russian may be admitted to the second year Diploma class in that language and may be allowed to appear for the Diploma examination at the end of that year.

For passing it is essential to secure 33 per cent of the marks

separately in the written and oral tests and 55 per cent in the aggregate: Those who get 75 per cent or more will be declared to have passed with distinction.

Examinations for Certificate of Proficiency in French, German and Russian

The course of study extends over two academic years and is open to all University students as well as to Graduates, not necessarily reading in any Faculty of the University, and to teachers who fulfil certain conditions. The examination consists of a written paper. The minimum for a pass is 36 per cent.

Bachelor of Science (Pass)

The course of study for the B.Sc. Pass degree shall extend over a period of two academic years.

Every candidate shall be required to pass in each of the subjects comprised in any one of the following groups of subjects and General English.

- (1) Physics, Chemistry, and Mathematics.
- (2) Chemistry, Botany, and Zoology.
- (3) Physics, Chemistry, and Botany.
- (4) Physics, Chemistry and Zoology.
- (5) Physics, Botany, and Zoology.
- (6) Physiology, Botany, and Zoology.
- (7) Chemistry, Botany, and Physiology.
- (8) Chemistry, Zoology, and Physiology.
- (9) Chemistry, Physics, and Physiology.
- (10) Botany, Zoology, and Geology.
- (11) Geology, Chemistry, and Botany.
- (12) Geology, Chemistry, and Zoology.
- (13) Geology, Chemistry, and Physics.
- (14) Geology, Chemistry, and Mathematics.
- (15) Geology, Physics, and Mathematics.
- (16) Geography, Geology, and Economics.
- (17) Geography, Chemistry, and Geology.
- (18) Geography, Geology, and Zoology.
- (19) Geography, Geology, and Botany.
- (20) Geography, Geology, and Mathematics.
- (21) Geography, Mathematics, and Economics.
- (22) Geography, Mathematics, and Physics.
- (23) Geography, Botany, and Zoology.
- (24) Geography, Botany, and Physics.

- (25) Geography, Geology, and Physics.
- (26) Geography, Chemistry, and Botany.
- (27) Mathematics, Physics, and Statistics.
- (28) Mathematics, Chemistry, and Statistics.
- (29) Statistics, Mathematics, and Geography.
- (30) Statistics, Mathematics, and Economics.
- (31) Statistics, Mathematics, and Philosophy.
- (32) Botany, Zoology, and Statistics.
- (33) Botany, Statistics, and Geography.
- (34) Zoology, Statistics, and Geography.
- *(35) Euthenics : Applied Chemistry, the Family, and Living Science.
- (36) Mathematics, Physics and Astronomy.

Students who are reading for a Pass Degree may, on the recommendation of the Head of the Department, be transferred by the Dean to an Honours course at any time up to the end of the first year of study.

The examination for the degree of Bachelor of Science shall be by means of papers, but candidates shall be required to undergo a practical examination, except in the case of Mathematics, examination in which shall be entirely by means of papers.

Names of successful candidates shall be arranged in three divisions :—

1st Division 60 per cent ; 2nd Division 48 per cent ; 3rd Division 36 per cent.

In order to pass, candidates must obtain a minimum of 33 per cent of the total marks in the written including class tests and also in the practical test, if any, in each subject separately.

Bachelor of Science (Honours)

There shall be the following Honours Schools in the Faculty :—

- (i) Physics, (ii) Chemistry, (iii) Botany, (iv) Zoology,
- (v) Mathematics, (vi) Geology.

The course of study for the B.Sc. Honours degree shall extend over a period of three academic years.

*The combination is allowed for Isabella Thoburn College students only.

Every candidate for the degree of B.Sc. Honours shall, in addition to his Honours subject, be required to pass an examination in each of two subsidiary subjects and General English.

The following statement shows the subsidiary subjects which may be taken with a particular principal subject :—

(i) Physics—Chemistry and Mathematics. (ii) Chemistry—Physics and Mathematics, *or* Botany and Zoology. (iii) Botany—Zoology and Chemistry. (iv) Zoology—Botany and Chemistry. (v) Mathematics—Physics and Chemistry. (vi) Geology—Botany and Zoology. (vii) Botany—Geology and Zoology. (viii) Zoology—Botany and Geology. (ix) Geology—Physics and Mathematics.

The examination in the subsidiary subjects may be taken at the end of the second year, and shall be identical with the pass B.Sc. degree examination in those subjects.

The examination for the degree of Bachelor of Science with Honours shall be by means of papers but candidates shall be required to undergo a practical examination, except in the case of Mathematics, examination in which shall be entirely by means of papers.

Candidates shall be required to pass separately in the practical examination.

Candidates who pass the examination shall be classified in three divisions :—First Division 60 per cent. Second Division 48 per cent. Third Division 36 per cent.

Candidates obtaining not less than 30 per cent of the total marks in the Honours subject may be awarded a Pass degree.

Master of Science

(For Honours Graduates)

Candidates shall not be admitted to the course for the degree of Master of Science unless they have taken the degree of B.Sc. (Honours) of Lucknow University or of another University having Honours courses extending over three academic years.

A candidate may not in less than one year after passing the B.Sc. Honours Examination, present himself for the M.Sc. Degree Examination in the subject in which he took Honours.

(For Pass Graduates)

The degree of Master of Science shall also be conferred on graduates who have not taken Honours courses but have pursued a regular course of study in the University for not less than two academic years since taking their Bachelor's degree.

A student's choice of subject in the M.Sc. examination shall be restricted to one of the subjects taken for the Bachelor's degree.

The examination shall consist of two parts ; Part I and Part II, and shall be taken at the end of the first and second years respectively.

Division shall be awarded on the combined results of the examinations in Part I and Part II.

The examination for the degree of Master of Science shall be either (i) by means of papers or (ii) partly by means of papers, partly by research. Candidates shall be required to undergo practical and *viva voce* examinations except in the case of Mathematics.

Candidates shall be required to pass separately in the practical examination.

Names of successful candidates shall be arranged in three divisions :—

- (i) First Division 60 per cent. (ii) Second Division 48 per cent. (iii) Third Division 36 per cent.

The subject of the examination shall be one of the following :—

- (i) Mathematics, (ii) Physics, (iii) Chemistry,
(iv) Zoology, (v) Botany, (vi) Geology.

Doctor of Philosophy

1. A candidate for the degree of Ph.D. shall have taken the M.Sc. degree of this University or of any approved University.

2. A Master of Science of the Lucknow University or of any other approved University shall be required to have—

- (i) pursued his researches under the supervision of the University for six terms.
- (ii) resided for six terms in the University or under conditions laid down for the residence of students. The Dean, on the recommendation of the Head of the Department, may grant permission to a candidate to reside outside Lucknow for purposes of collecting material for his thesis for not more than two out of the six terms; such exemption shall not be granted either for the first term or for the last term.

Doctor of Science

Applicants for the degree of Doctor of Science shall have taken the Ph.D. degree of the Lucknow University or of any other approved University not less than five years before submitting their work for the D.Sc. degree:—

Provided that a candidate who has not taken the Ph.D. degree from this University shall have carried on research for not less than three terms under the supervision of the University.

The dissertation submitted for the degree of Doctor of Philosophy or Doctor of Science shall be on some branch of one of the following Sciences: (i) Physics, (ii) Chemistry, (iii) Botany, (iv) Zoology, (v) Mathematics, (vi) Geology.

The degree shall be conferred on the basis of published work only. There shall be no practical or *viva voce* examination.

Doctor of Science (Honoris Causa)

The degree of Doctor of Science may be conferred as an Honorary degree, in accordance with the provisions of Statute 14, upon any person, on the ground that he is, by reason of eminent position and attainments or by virtue of his contribution to the cause of learning, a fit and proper person to receive such a degree.

MEDICINE

Pre-Medical Test

There shall be a Pre-Medical Examination for admission to

the courses of study for the M.B., B.S., in the Faculty of Medicine of this University and it shall be held at Lucknow and Agra simultaneously once a year.

No candidate shall be admitted to this examination unless he has passed either

- (i) the B.Sc. Examination of an Indian University incorporated by any law for the time being in force, with Chemistry and Biology ; or
- (ii) having passed the B.Sc. Examination, has passed at one time or other in that examination combined with the Intermediate examination leading thereto in the three subjects of Chemistry, Physics, and Biology; or
- (iii) the Intermediate Examination of the Board of High School and Intermediate Education, U. P., or Rajputana (including Ajmer-Merwara) Central India and Gwalior, or the Intermediate Examination of an Indian University incorporated by any law for the time being in force, with Chemistry (including Organic Chemistry), Physics, and Biology, in such courses of study as may be recognised for the purpose from time to time by the Faculty of Medicine.

Provided that he has attained the age of 17 years or will attain that age by November 30 of the year of admission.

Every candidate appearing at the examination shall be required to appear in the following subjects :—

- (1) Chemistry (including Organic Chemistry), (2) Physics, (3) Zoology, (4) Botany.

The examination shall be a competitive one for the purpose of filling up the declared number of vacancies, for (1) *bona fide* residents of the Uttar Pradesh, and (2) residents of other Provinces and Indian States which have no Medical College of their own and whose claim to admission has been recognised by the Executive Council on certain conditions.

Two seats have been reserved for students of the Delhi State on the condition that the candidates must secure a position within the sanctioned limit of numbers. Two seats

have been reserved for scheduled caste candidates for a period of five years from the session 1950-51. As a temporary measure, two seats have also been reserved for Jammu and Kashmir candidates possessing the requisite qualifications for admission. Two seats have been reserved for the foreign students from overseas countries to be nominated by the Government of India. Four seats have been reserved for students nominated by the Nepal Government.

Bachelor of Medicine and Bachelor of Surgery

Candidates shall be admitted to the courses of study for the degrees of Bachelor of Medicine and Bachelor of Surgery extending over a period of not less than five academic years after passing the Pre-Medical Test.

There are two examinations to be taken. The First Professional and the Final Professional. The First Professional Examination shall be in the subjects of Anatomy and Physiology and can only be taken at the end of the second year.

The Final Professional Examination shall consist of two Parts *viz.* :—

Part I

Pharmacology including Pharmacy, Materia Medica, and Pharmacological Therapeutics, Pathology and Bacteriology.

Forensic Medicine, Toxicology in their Medico-legal aspect.

Public Health—(Social Medicine and Public Health.)

An examination in Part I shall be held at the end of the fourth year of the student's Medical Course.

Part II

Medicine, including Therapeutics, Medical Pathology, and Mental Diseases.

Surgery, including Surgical Anatomy and Surgical Pathology, Ophthalmology; and
Obstetrics and Gynaecology.

Part I and Part II of the Final Professional Examination may be taken separately, provided that the candidate when

appearing for this examination shall produce evidence of having passed the First Professional Examination or the Final Professional Part I Examination respectively of the University.

In Part I there will be one paper and an oral examination in Pharmacology, Forensic Medicine, Toxicology, Mental Diseases and Public Health and two papers and a practical and oral examination in Pathology. Part II of the Final Professional Examination consists of two papers and a Practical and Clinical examination in Medicine and in Surgery, one paper and an oral and clinical examination in Ophthalmology, and one paper and an oral examination in Obstetrics and Gynaecology.

The minimum for distinction in each subject is 75 per cent of the aggregate and for Honours it is 75 per cent in four subjects. The minimum for a pass in the written papers as well as in the practical and oral examination is 50 per cent.

Doctor of Medicine and Master of Surgery

Bachelors of Medicine and Surgery of three years standing can be admitted to the degree of Doctor of Medicine or Master of Surgery.

Candidates have to submit a thesis on a special subject in any of the following Departments:—

1. For the Degree of M.D.

(1) Medicine, (2) Pathology, (3) Forensic Medicine, (4) State Medicine, (5) Pharmacology, (6) Physiology, (7) Tuberculosis, (8) Radiology.

2. For the Degree of M.S.

(1) Surgery, (2) Ophthalmology, (3) Obstetrics and Gynaecology, (4) Anatomy, (5) Orthopaedic Surgery, (6) E. N. T. Diseases.

The examination for a candidate whose thesis is accepted shall consist of two Parts as under:—

For the M.D. Degree

Part I.—It shall consist of three papers on the special subject other than Medicine selected by the candidate.

If the special subject is Medicine, then it shall consist of three papers as follows:—

(a) One paper on General Medicine, (b) One paper on Medical Pathology and Bacteriology, and (c) One paper on the latest advances in Medicine, together with commentaries on cases.

Provided that a candidate who has already passed the M.D. (Pathology) will be exempted from the paper on Medical Pathology and Bacteriology.

Part II.—It shall consist of an oral, practical and clinical examination.

(a) *M. D. in Medicine*.—An oral, practical and clinical examination in Medicine including Medical Pathology and Bacteriology. (b) *M.D. in subjects other than Medicine*.—An oral and practical examination in the special subject selected by the candidate.

For the M.S. Degree

Part I.—It shall consist of three papers on the special subject other than Surgery selected by the candidate.

If the special subject is Surgery, it shall consist of three papers as follows:—

- (a) One paper on General Surgery.
- (b) One paper on Surgical Pathology and Anatomy ; and
- (c) One paper on the latest advances in Surgery together with commentaries on cases.

Part II.—It shall consist of an oral, practical and clinical examination.

(a) *M.S.—Surgery*.—A clinical, oral and practical examination in Surgery and Surgical Pathology including operations on the living and including also the use of special methods, such as electricity and of special instruments for diagnosis and treatment.

(b) *M.S.—Ophthalmology or Obstetrics and Gynaecology*.—
(i) A clinical, oral and practical examination in the special subject selected by the candidate: and

(c) *M. S. Anatomy*—

(i) An oral and practical examination in Anatomy.

Bachelor of Dental Surgery

(1) A two year course for medical graduates (the scheme is under suspension for the present).

(2) A four year course for undergraduates.

A. Ordinances

1. *Admission*.—Admission to the four years undergraduate course of instruction shall be through a Pre-Dental Examination which shall be held at the same time, in the same subjects, and on the same conditions as those laid down for the Pre-Medical Examination, except that the Pre-Dental Examination is open to the resident (male or female) of all the Provinces and States of India.

2. Except as hereinafter provided, no candidate shall be admitted to the degree of Bachelor of Dental Surgery unless he or she shall have attended the prescribed course of study extending over a period of not less than four academic years, after passing the Pre-Dental Examination, in the last three of which clinical subjects should be studied.

The necessary attendance must be put in at the University Hospitals.

3. The First Professional Examination, at the end of the first year, shall be in the following subjects:—

- (1) General Human Anatomy—Written, Oral and Practical.
- (2) General Human Physiology with Histology and Biochemistry—Written, Oral and Practical.
- (3) Dental Metallurgy including materials used in Dentistry—Written and Oral.

Candidates before presenting themselves for this examination shall produce evidence of—

- (1) having completed the first year of the course ;
- (2) having attended complete courses of instruction approved by the University for the above-mentioned subjects ;

A candidate offering Certificate 'B' of the National Cadet Corps shall be required to sit for the examination conducted by the Army and to secure a pass therein according to the standard laid down by the army from time to time.

Candidates who fail to obtain a pass in Certificate 'B' and desire to complete the Intermediate Examination with another optional subject under Part III in place of Certificate 'B' shall be permitted to do so without further attendance in the new optional subject provided they pass the examination in accordance with the conditions prescribed in the Regulations.

All the other candidates shall be declared to have failed in the examination.

Candidates who pass in all the Parts at the same examination, and who obtain not less than 60 per cent of the total marks shall be placed in the first class; those who obtain less than 60 per cent but not less than 50 per cent shall be placed in the second class; and all the other successful candidates shall be placed in the third class.

Successful candidates who pass in all the Parts at the same examination, and obtain not less than 70 per cent of the marks in any subject shall be declared to have gained distinction in that subject.

Candidates who obtain the prescribed minimum marks in each Part in separate examinations and are declared to have passed the examination under the Regulations shall be placed in a separate list in the third Class.

Provision has also been made to permit candidates who have passed the Intermediate Examination to qualify in a new subject or subjects under Part III. Such candidates are required to undergo a course of study for one year in a college in the subject in which they desire to qualify.

(2) *Bachelor of Arts (B.A.) Pass*.—The course of study extends over a period of two years after the Intermediate Examination. The subjects of study and the scheme of examination are:—
Part I: English Language and Literature—Composition, Modern Prose, Modern Poetry and Shakespeare (4 papers); Part II: Second Language, one of the Classical or Modern (Foreign or Indian) Languages prescribed for the Intermediate Course (2 papers); Part III: Optional Subjects, one of the following

Groups: (i) (a) Mathematics (6 papers), (b) Mathematics (6 papers), (c) Statistics (5 papers written and a Practical Examination); (ii) two of the following (one as main subject and the other as subsidiary subject); (a) Mathematics, (b) Physics, (c) Chemistry, (d) Botany, (e) Zoology, (f) Geology, (g) Physiology, (h) Electrical Engineering, and (i) Mechanical Engineering; (h) and (i) to be taken as subsidiary subjects only to Physics (as main subject) written and practical examinations; (iii) (a) Philosophy (5 papers); (iii) (b) Philosophy (5 papers); (iii) (c) Psychology (5 papers); (iv) (a) History and Economics (5 papers); (iv) (b) Economics and History (5 papers); (iv) (c) Politics and History (5 papers); (iv) (d) Islamic History and Culture (5 papers); (v) Languages other than English (6 papers); (vi) Indian Music (2 papers written and practical examinations); (vii) Western Music (2 papers written and practical examinations); (viii) Geography (Main) with History, Economics, Mathematics, Physics, Chemistry, Botany, Zoology, or Geology as a subsidiary subject (5 papers written and practical examination); (ix) Home Science (4 papers written and practical examinations); (x) Drawing and Painting (written and practical examinations). The minimum for a pass is 35 per cent in Part I English, 35 per cent in Part II Second language and in Part III, 30 per cent in each division of the optional groups, and 35 per cent in the total except in the case of Group (ii), Group (vi) Indian Music, Group (vii) Western Music, and Groups (vii-e) and (viii-f)—Geography as Main and Subsidiary respectively. In Group (vi) and (vii), a candidate should obtain not less than 35 per cent of the total marks and not less than 35 per cent in the Practical Examination and not less than 30 per cent in the Theory Examination. In the case of Groups (ii), (viii-e), and (viii-f), a candidate should obtain 35 per cent in each division of the examination. Candidates getting not less than 60 per cent are placed in the First Class while those obtaining not less than 50 per cent are placed in the Second Class, and those obtaining less than 50 per cent are placed in the Third Class. Provision has been made to enable candidates to take Hindi with Sanskrit or Urdu or Indian History—Muslim Period under Group (v).

A candidate offering Military Science—Certificate 'C' of the National Cadet Corps either in place of Shakespeare and Modern Poetry or as an additional subject shall be required to sit for the examination conducted by the Army, and to secure a pass therein, according to the standard laid down by the Army from time to time.

Candidates who fail to obtain a pass in Certificate 'C' and

- (3) of having completed the required dissections of the human body.

Candidates who fail to appear in or to pass the First Professional Examination in five successive opportunities shall not be allowed to continue their studies, except with special permission of the Faculty.

4. The Second Professional Examination, at the end of the second year, shall consist of the following subjects :—

- (1) General and Dental Materia Medica—Written, Oral and Practical.
- (2) General Pathology and Bacteriology—Written, Oral and Practical.
- (3) Human Dental Anatomy, Physiology and Dental Histology—Written, Oral and Practical.

Candidates before appearing for this examination must produce evidence (a) of having passed the First Professional Examination, in all the subjects, and (b) of having completed their second year of study.

5. The Third Professional Examination, at the end of the third year, shall consist of the following subjects :—

- (1) Medicine—Written, Oral and Clinical.
- (2) Surgery—Written, Oral and Clinical.
- (3) Dental and Oral Pathology with Dental Bacteriology—Written, Oral and Practical.

Candidates before appearing for this examination, must produce evidence

(a) of having passed the Second Professional Examination in all the subjects;

(b) of having completed their third year of study, (Course of Medicine and Surgery extending over two years during the II and III year of the course);

(c) of having received a course of clinical instruction in the University in the following subjects :—

- (i) Medicine.
- (ii) General Surgery.
- (iii) Venereal Diseases,

and (d) of having

- (i) attended as a clinical clerk in the Medical wards for one month,
- (ii) attended as surgical dresser in Surgical wards for one month,
- (iii) attended the Medical Out-Patients' Section and the Surgical Out-Patients' Section for separate periods of one month each,
- (iv) attended the Venereal Out-Patients' Section and the T. B. Department for separate periods of two weeks each.

6. The Final Professional Examination, at the end of the fourth year, shall consist of two parts, *viz.* :—

Part A

- (1) Dental Prosthetics, including Crown and Bridge Prosthesis—Written, Oral and Practical.

Part B

- (1) Operative Dental Surgery (Orientation in Dentistry and practice management) with Dental Jurisprudence Ethics and Economics—Written, Oral and Practical.
- (2) Oral Surgery and Dental Radiology—Written, Oral and Clinical.
- (3) Orthodontia with Preventive and Children's Dentistry—Written, Oral and Clinical.

Candidates before appearing for this examination must produce evidence

- (a) of having passed the Third Professional Examination, in all the subjects;
- (b) of having completed their fourth year of study and also the course of Dental Hospital Practice;

(c) of having received a course of instruction in the University in the following subjects :—

- (i) Orientation in Dentistry,
- (ii) Practice Management,
- (iii) Dental Jurisprudence,
- (iv) Dental Radiology ;

(d) of having attended lecturers in Dental Prosthetics over two academic sessions and Practicals for the full four years ;

(e) of having attended lectures over two terms in Crown and Bridge Prosthesis, practicals and demonstrations extending over three terms ;

(f) of having undergone lectures and practicals in Dental and Oral Surgery, General and Local Anaesthesia and Exodontia ; and

(g) of having completed lectures and practicals in Orthodontia extending over the last two academic sessions.

7. The Professional Examinations will be held, for the present, only once a year in April. The Supplementary Examination will be held in the month of July (2nd half).

Diploma in Medical Radiology and Electricity

(A) Ordinances

The Course for this Diploma is open to graduates in medicine of this and other approved Universities and extends over one year.

The subjects of the course are as follows :—

Part I.—Electro-Magnetism. Electro-Technology as applied to Radio-diagnosis and Radio-therapeutics.

Part II.—(a) Radiography and Radio-diagnosis.
(b) Radio-therapy.

There will be two papers of 40 marks each on the subjects mentioned in (a) and (b) above.

The examination for the Diploma consists of two parts. Candidates may enter for Part I and Part II at the same examination; or may enter for Part I only.

A candidate will not be permitted to proceed to Part II of the examination unless he passes Part I of the examination.

The examination will consist of a paper, a practical examination and an oral examination in each of the subjects under Part I and Part II.

(B) *Regulation*

Eighty per cent attendance in lectures, demonstrations and practical classes will be required before a candidate is permitted to sit for the examination.

Diploma in Laryngology and Otology

(A) *Ordinances*

The course for this Diploma is open to graduate in Medicine of this and other approved Universities, and extends over one year.

The examination shall consist of two parts.

Part I.—A written and oral examination on the Anatomy, Embryology and Physiology of the Structures in the Head, Neck and Thorax. There shall be only one paper to be set by the external examiner.

Part II.—A written, oral, practical and clinical examination on :—

- (a) Special instruments and appliances.
- (b) The Medicine, Surgery, Pathology and Bacteriology of the Nose, Throat, Ear and neighbouring organs.

There shall be two papers one to be set by the internal examiner and the other by the external examiner.

No candidate will be permitted to appear at the Part II of the examination unless he has previously passed the Part I. A candidate, however, can take the two parts at the same examination, if he has, otherwise, fulfilled the conditions as regards the course of study.

(B) *Regulations*

For the present all teaching hospitals are recognised hospitals, and also the Irwin Hospital, New Delhi.

Eighty per cent of the attendance will be required before being permitted to sit for the examination.

Diploma in Gynaecology and Obstetrics

(A) *Ordinances*

The course for this Diploma is open to graduates in Medicine of this and other approved Universities, and extends over one year.

The examination will be in two parts. Only those candidates who have passed Part I of the examination will be allowed to proceed to Part II.

Part I

One paper consisting of two parts, Part I on the Female Pelvis, its contents and Embryology and Part II on the Physiology of the generative organs including Endocrinology.

Part II

- (a) One paper in Midwifery and Diseases of the New Born.
- (b) One paper in Gynaecology, Gynaecological Pathology and Gynaecological Operations ;
- (c) A practical, clinical and oral examination.

Diploma in Clinical Pathology

(A) *Ordinances.*

The course is open to Medical graduates of this and other approved Universities.

Not more than 4 candidates will be admitted at a time.

The examination will be held twice a year, ordinarily about the month of April and in October, along with the M.B.B.S. examination and will consist of two Parts :—

A—Written—There will be two Papers of 3 hours each with 150 marks assigned to each of them.

First Paper on the Theory and Practice of Morbid Histology, Haematology including Parasitology.

Second Paper on the Theory and Practice of Chemical Pathology and Clinical Bacteriology including Immunology.

Each Paper will consist of 6 questions divided into two parts. The two parts in the First Paper will be set and examined by the external examiner for M.B.B.S., and the Head of the Department of Pathology while the two parts in the Second Paper will be set and examined by the Reader and Lecturer in Pathology.

B—Practical and Oral examination will be conducted by all the four examiners (one external and three internal) in collaboration—300 marks will be assigned for practical and oral.

A candidate will be declared successful if he obtains 50 per cent marks in both the Parts A and B separately.

(B) Regulations

Students are required to attend a course of study and practical instructions for a period of one full year (November to October).

Eighty per cent attendance in the laboratory and also at lectures is essential.

The course of study will include Bacteriology, Morbid Histology, Haematology and Chemical Pathology.

The external examiner shall be the same as appointed for the M.B.B.S. examination. All the examiners will assess the two Parts of the examination in collaboration.

Candidates who have already been Lecturers Grade B or Demonstrators in any Department of Pathology of a recognized University for not less than one year, will be exempted from this training for a period of six months but must get themselves enrolled at the beginning of the course of instruction, *i.e.*, in November.

Fee for the course will be Rs. 150 for the whole year. No concession will be given to candidates mentioned in paragraph 5 in the matter of fee.

Diploma in Tuberculosis Diseases

(A) Ordinances

The course is open to Medical graduate of this and other approved Universities.

The number of candidates at present will be restricted to six.

The examination will be held in two Parts. Part I examination will be held about the middle of April and

CAUTION:

**Image 646 is NO longer
present in scan-order!**

**Maybe it was deleted from
outside of BCS-2 ?**

Diploma in Orthopaedic Surgery*A.—Ordinances*

1. The Diploma shall be called "Diploma in Orthopaedic Surgery" (D. Orth, S., Lucknow) and shall be conferred after requisite examinations have been passed.

2. Candidates entering for this Diploma must possess the following qualifications :—

- (a) Passed the M.B.B.S. Examination of this University, or of any other institution recognised by this University.
- (b) He should have held an appointment in the Department of General Surgery or other specialised branches in a Hospital attached to a teaching institution, recognised by this University or any other Hospital recognised for the purposes by this University.
- (c) Attended the prescribed course of lectures and clinical demonstrations and worked as a clinical clerk in an affiliated College for one academic year in the Orthopaedic Department.

Provided that if the candidate possessed the post-graduate qualification (M.S. or F.R.C.S.) or has held an appointment in Orthopaedic Department for six months or more the period of clinical clerkship mentioned above shall be reduced to six months.

3. The admission of the candidates will be made in the month of September on receipt of application in the prescribed form in August and the course of Instruction will begin from the first day of November. This course will extend over one year (November-October).

4. Candidates have to submit the following with their application form :—

- (a) A certificate of character from the Principal of the Medical College affiliated to the University which he has attended and a certificate to the effect that he has passed his M. B. B. S. and attended the course of study prescribed.
- (b) An application for admission together with the prescribed fees for enrolment and admission,

- (c) Certificate of proficiency from two responsible persons preferably teachers under whom he has worked and displayed aptitude for Orthopaedic Surgery.

5. Not more than six candidates will be admitted at a time.
6. The examination will be held twice a year, ordinarily about the month of April and in October and will consist of two parts.

Part I.—Anatomy, Physiology, General Pathology, and Bacteriology with special reference to:—

- (a) Paper I.—Anatomy including embryology and Physiology of the locomotor system, and allied orthopaedic conditions.

- (b) Paper II.—(i) Pathology of the deformities and lesions of the locomotor system.

- (ii) Physical-Medicine, Manual massage, Rehabilitation, Physio therapy with occupational therapy.

- (iii) Broad outlines of general surgery.

Oral and Practical examination in basic sciences as mentioned above.

Part II.
Paper I.—Traumatology in general and with special reference to locomotor system, including applied questions in general Surgery.

Paper II.—(i) Recent advances in Orthopaedic Surgery and Applied Pathology.

- (ii) Principles of treatment in Orthopaedic Surgery and organisation of Orthopaedic treatment including plaster technique.

- (iii) Electrical treatment with reference to Orthopaedic conditions.

- (iv) Operative Surgery and Manipulative Surgery.
Oral, Clinical and Practical Examination.

Each paper will consist of six questions.

The examination shall be conducted by one internal examiner who shall be the Head of the Department of Orthopaedic Surgery and one external examiner.

There will be 15 days difference between the dates of Part I and II examination.

7. No candidate shall be permitted to appear at Part II Examination unless he has passed the Part I. A candidate, however, can take the two Parts at the same examination if he has otherwise fulfilled the conditions as regards the courses of study.

8. Exemption will not be granted from any Part of the examination except in Part I for those who have passed Primary F.R.C.S. Examination of recognised colleges, subject to approval by the Head of the Department of Orthopaedic Surgery.

9. Examination fee ... Rs. 150/- for each Part.

Tuition fee for the course will be Rs. 300/- per session from the students of this University and Rs. 400/- from students of other Universities.

SCHEME OF EXAMINATION

Part I

Paper I	50 marks.
Paper II	50 marks.
Oral and Practical	200 marks.
Pass marks	
Written	40 %.
Oral and Practical	50 %.
Aggregate	50 %.
Time allowed for each Paper	3 hours.

Part II

Paper I	50 marks.
Paper II	50 marks.
Oral, Clinical and Practical	300 marks.

The Practical, Clinical and Oral examinations, carrying a total of 300 marks shall consist of :—

(a) Clinical	100 marks.
(b) Practical	100 marks.
(c) Oral	100 marks.

Pass marks.

Written	...	...	...	...	40%
Total of Clinical, Practical and Oral	...	...	...	...	50%
Aggregate	...	...	...	...	50%
Time allowed for each paper.					3 hours.

*COURSES OF STUDY**Part I.*

Anatomy, Physiology, General Pathology and Elementary Bacteriology with special reference to :—

- (i) The Anatomy with Embryology and Physiology of the Locomotor system.
- (ii) The deformities and diseases of the locomotor system with special reference to development anomalies and their clinical manifestations.

Part II.

- (i) (a) Surgical Pathology with special reference to orthopaedic system.
- (b) Traumatology in general with special reference to locomotor system and organisation of first aid posts.
- (c) Physical Medicine—Physio-therapy in relation to treatment of orthopaedic conditions and fractures.
- (d) Rehabilitation and occupational therapy and vocational training.

- (e) Principles of treatment in Orthopaedic Surgery and recent advances in Orthopaedic Surgery.
 - (f) Plaster techniques.
 - (g) Manipulative Surgery.
 - (h) Applied Electrical treatment and Radiological Diagnosis.
- (ii) Broad outline of general Surgery as prescribed for the M.B.B.S. Course of the University.

LAW

Bachelor of Law (LL.B.)

Bachelors of Arts or Science or Commerce of the Lucknow University or of any approved University are admitted to the courses of study for the LL.B. Degree which extends over two academic years. The examination consist of two parts—the Previous and the Final, held at the end of the first and second years respectively.

For the Previous examination the following subjects are prescribed for study :—

1. International Law.
 - (i) International Law—Peace.
 - (ii) International Law—Disputes, War and Neutrality.
2. Legal History :
 - (i) English Legal History.
 - (ii) Indian Legal History.
3. Mohammadan Law.
4. Constitutional Law :
 - (i) English Constitutional Law.
 - (ii) Indian Constitutional Law.
5. Law of Contracts and Specific Relief.
6. Law of Torts :
 - (i) Torts—General Principles.
 - (ii) Torts—Specific Wrongs.
7. Law of Partnership and Companies.
8. Law of Agency, Sale of goods and Negotiable Instruments.

6. For the Final examination the following subjects are prescribed for study :—

1. Trusts, Easements and Transfer of Property :
 - (i) Transfer of Property—General Principles.
 - (ii) Trusts, Easements and Specific Transfers.

2. Criminal Law.
 - (i) Criminal Law—General Principles.
 - (ii) Criminal Law—Specific Crimes.

3. Hindu Law.

4. Evidence and Criminal Procedure.

5. Civil Procedure, Pleadings and Limitation.
 - (i) Pleadings and Limitation.
 - (ii) Civil Procedure.

6. Jurisprudence.

7. Land Law in U.P.
Or
Labour Law
Or
Private International Law
Or
Law of Taxation

The examinations for the degree of Bachelor of Laws shall be conducted wholly by means of papers.

In order to pass, a candidate must (a) obtain 30 per cent of the marks in each paper, and (b) obtain 50 per cent of the total marks obtainable. First Division 66 per cent; Second Division 50 per cent.

Master of Laws (LL.M.)

Ordinances

1. Every candidate for admission to the examination for the degree of Master of Laws shall satisfy the following conditions :—

- (a) He must have passed the examination for the degree of Bachelor of Laws of this University or the examination of any other University or institution recognised as equivalent to the degree of Bachelor of Laws of this University.

Intermediate Examination in Group E of the Board of Intermediate and Secondary Education, Dacca ; or the Intermediate Examination of the Andhra University, in three Commercial subjects, *viz.*, Accountancy, Banking and Economic Geography or Mathematics ; or the Intermediate Examination or the B.A. Examination of any recognised University, or the Intermediate Examination of the Board of High School and Intermediate Education, U.P., Rajputana (including Ajmer-Merwara), Central India and Gwalior, or of the Board of Intermediate and Secondary Education, Dacca, or of the Jammu and Kashmir University ; or the Examination conducted by the Board of Secondary Education, United States of Madhya Bharat, with Economics as one of their subjects, provided that on joining the Commerce Faculty of the University they take up Banking or Actuarial Mathematics for both the B.Com. Previous and Final Examinations ; or Part I of the Associate Examination of the Indian Institute of Bankers after passing the Intermediate Examination ; or the All-India Senior Diploma in Commerce of the All-India Board of Commercial Studies, Delhi, are admitted to the course of study for the B.Com. Degree extending over two academic years,

The Examination shall consist of two parts, the Previous and the Final, held at the end of the first and the second years respectively. No candidate shall be allowed to appear at the Final Examination unless he has passed the Previous examination.

In the Previous Examination every candidate shall be required to pass in the following three sections :—

- (I) (i) Accounting, or Banking or Actuarial Mathematics, (ii) Transport.
- (II) (i) Business Organisation, (ii) Indian Industries and Resources.
- (III) (i) Economics, (ii) Co-operative Organisation and Finance or Insurance.

In the Final Examination every candidate shall be required to pass in the following four sections :—

- (I) Advanced Accounting and Auditing, or Advanced Banking or Elements of Actuarial Science.
- (II) (a) (i) Trade of India, or Currency, Credit and Exchange, (ii) Economic History or Marketing Practice and Finance, or (b) (i) Geography, one paper, (ii) Geography

Practical, or (c) (i) Military Science, one paper, (ii) Military Science—practical.

(III) (i) Statistics. (ii) Public Finance.

(IV) (i) Mercantile and Industrial Law. (ii) Secretarial Practice and Company Law.

Both the Previous and the Final Examinations for the degree of Bachelor of Commerce shall be conducted wholly by means of papers.

Candidates for the B.Com. degree shall be required to pass the examination in General English of the B.A. standard unless they have taken English as one of their subjects for the B.A. Degree.

Names of successful candidates shall be arranged in three divisions :—

First Division 60 per cent, Second Division 48 per cent,
and Third Division 36 per cent.

In order to pass candidates must obtain 33 per cent of the total marks in each section.

Master of Commerce (M.Com.)

The degree of Master of Commerce shall be conferred on Graduates in Commerce who have pursued a regular course of study in the University for not less than two academic years.

Admission to the M.Com. course shall be restricted to B.Com.'s of the Lucknow University or of the Allahabad University or of the Agra University or of the Calcutta University or of the Punjab University or of the Banaras Hindu University or of the Nagpur University or of the Madras University or of the Patna University or of the Andhra University or of the Rajputana University or of the Gauhati University or of the Jammu and Kashmir University.

The examination shall consist of two parts, Parts I and II.

A student after completing a regular course of study for not less than one academic year shall be admitted to the M.Com. Part I Examination of the year.

M.Com. Part II Examination shall be open to all students who have since passing Part I Examination prosecuted a regular course of study for not less than one academic year.

Divisions shall be awarded on the combined results of the examinations in Parts I and II.

The examination for the degree of Master of Commerce shall be by means of papers provided that a thesis may be offered in lieu of one of the papers in M.Com. Part II Examination with the approval of the Head of the Department.

Candidates shall also be required to undergo a *viva voce* test in the M.Com. Part II Examination.

The M.Com. Examination will comprise of the following papers :—

Part I

1. Accounting Problems and Practice or Advanced Actuarial Practice or Banking Problems and Practice.

2. Any *three* of the following papers :—

- (i) Economic Thought and Business Economics.
- (ii) Advanced Transport.
- (iii) Labour Management and Industrial Relations.
- (iv) Applied Statistics.
- (v) International Trade and Foreign Exchange.
- (vi) Monetary Economics.

Part II

Any *four* of the following papers :—

- (i) Commercial Development and Industrial Organisation from 1800 to 1939.
- (ii) Organisation and Finance of Major Industries in India.
- (iii) Organisation, Finance and Regulation of International Commerce.
- (iv) Business Administration.
- (v) Advanced Economic Theory and Analysis.

Names of successful candidates shall be arranged in three divisions :—

- (i) First Division, 60 per cent. Second Division, 48 per cent, Third Division, 36 per cent.

Doctor of Philosophy

Candidates for the degree of Doctor of Philosophy shall be required to have carried on research work under the supervision of the University for six terms.

Candidates for the degree of Ph.D. shall have taken the Master's degree in Commerce of this University or of any other approved University.

The dissertation submitted for the degree of Ph.D. shall be on some branch of one of the following subjects:—

Commerce : Accounting, Industries and Resources, Commercial and Industrial Organisation, Co-operation, Marketing Transport, Stock Exchange, Insurance.

Economics : Money, Currency, Banking, Public Finance, Statistics, Trade and Commerce—Internal and External.

Table of Examination Fees

<i>Arts and Science</i>					Rs.
B.A. and B.Sc. (Preliminary)	...	...	...	...	20
B.A. and B.Sc. (Pass)*	...	...	...	...	30
B.A. and B.Sc. (Honours)*	...	...	...	...	55
Provided that a student who holds a Pass Degree and wishes to take an Honours Degree or a student who has passed the examination of one Honours School and wishes to appear in the examination of another Honours School shall pay an examination fee of					20
M.A. and M.Sc.	...	...	...	...	50
Master in Education	...	...	...	...	30
M.A. and M.Sc. Part I Previous	...	...	...	...	30
M.A. and M.Sc. Part II Final	...	...	...	...	20
Diploma in Psychology	...	...	...	...	200
Ph.D., D.Litt. and D.Sc.	...	...	...	...	20
Re-examination in B.A. and B.Sc. Honours subject	...	...	...	...	10
Re-examination in each subsidiary subject	...	...	...	...	10

*A fee of Rs. 10 to be charged from a candidate who has to appear in General or Special English only or in one subject only under Ordinance 2 (iii) under Master of Arts for Pass Graduates.

Full examination fee to be charged from students who appear in one subject only, under the compartmental system.

Re-examination in each subsidiary subject (after passing in the examination in the Principal subject)	Rs. 15
Pre-Medical Examination	30

Medicine

First M.B., B.S.	25
Final M.B., B.S., Part I	55
Do. Part II	50
Re-examination in Final M.B., B.S.	50
Re-examination in one subject of Final M.B., B.S.	30
1st year B.D.S.	25
2nd year B.D.S.	50
3rd year B.D.S.	50
4th year B.D.S.	50
Re-examination fee for each class will also be the same.	
Re-examination in one subject of 2nd and 3rd year B.D.S.	30
M.D.	200
M.S.	200
D.P.H. (each Part)	100
Diploma in Medical Radiology and Electricity (each Part)	100
Diploma in Laryngology and Otology (each Part)	100
Diploma in Gynaecology and Obstetrics (for Part I)	100
(For Part II)	200
Diploma in Tuberculosis Diseases (each Part)	100
Diploma in Clinical Pathology	150

Medicine (Ancient and Modern)—B.M.B.S.

	Rs.
Preliminary Examination	10
First B.M.B.S.	25
Final B.M.B.S. (Part I)	55
Do. (Part II)	50
Re-examination in Final B.M.B.S.	50
Re-examination in one subject of Final B.M.B.S.	30

Law

LL.B. Previous	30
LL.B. Final	40
LL.M. Part I	50
LL.M. Part II	50
LL.D.	200

Commerce

							Rs.
B.Com. Previous	...	...	...	...	...	...	20
B.Com. Final†	...	...	...	...	...	...	30
M.Com. Part I	...	...	...	...	...	...	30
M.Com. Part II	...	...	...	...	...	...	30
Ph.D.	...	...	...	...	...	...	200
Special Paper in Accountancy	...	...	...	...	...	...	10

Diploma Examinations

In Arabic and Persian :

Maulvi and Dabir	...	...	...	...	...	...	4
Alim and Dabir-i-Mahir	...	...	...	...	...	...	8
Fazil and Dabir-i-Kamil	...	...	...	...	...	...	10

Licentiate of Teaching :

For the full examination	...	...	...	...	...	...	30
Re-examination in each subject	...	...	...	...	...	...	10

In Sanskrit :

Shastri	...	...	...	...	...	...	8
Acharya	...	...	...	...	...	...	10

Note—Before appearing in Part I of the Shastri or Acharya examination a candidate must deposit the fee for the whole examination, †† i. e. Rs. 8 or Rs. 10 respectively.

<i>Certificate of Proficiency in French or German or Russian</i>	10
--	-----	-----	-----	-----	-----	-----	----

† Full examination fee to be charged from students who appear in one section only under the compartmental system. A fee of Rs. 10 to be charged from a candidate who has appeared in General or Special English only.

†† A fee of Rs. 5 will be charged from a candidate who has to reappear in either Part of the Shastri or Acharya Examinations.

MADRAS UNIVERSITY

Introductory : Character of the University

The University of Madras was founded under the Act of Incorporation XXVII of 1857. This Act was in operation until 1904 when as a result of the Commission appointed by the Government of India in 1902 to examine the working of the Universities under that system, the Indian University Act No. VIII of 1904 was passed with the intention of reorganizing the Universities in India and of enlarging their functions in the matters of University Teaching and of supervision over affiliated colleges. This Act again was superseded by the Madras University Act VII of 1923 which was passed to reorganize the University with a view to establishing a teaching and residential University at Madras while enabling the University to continue to exercise due control over the quality of the teaching given by colleges which are to constitute the University or are affiliated to it. This Act has since been amended by the Amending Act XII of 1929, which has since been modified by the Government of India Adaptation of Indian Laws Orders 1937 and 1940 and the amending Acts of 1942 and 1943.

The University is federal in character and is in the main an examining body, though it has undertaken teaching and research in Economics, Indian History, Politics and Public Administration, Philosophy, Psychology, Mathematics, Physics, Geology, Statistics, Geography, Botany, Chemistry, Zoology, Anthropology, Technology, as well as in Sanskrit, Hindi, Islamic and Dravidian Languages, in Indian Music and constitutional and International Law.

There are 21 constituent colleges, *i.e.*, colleges within the University area and the Alagappa Chettiar College of Technology, Guindy, maintained by the University, besides the Y. M. C.A. College of Physical Education, Saidapet an institution approved in the Diploma in Physical Education course. Of these, 12 prepare candidates for Intermediate courses and or for Degrees in Arts and Science, 4 in Teaching, 1 in Law, 2 in Medicine, 1 in Engineering and 1 in Veterinary Science. Besides, there are 67 affiliated colleges of which 54 prepare candidates for Intermediate Courses and or for Degrees in Arts and Science, 1 in Agriculture, 1 in Medicine which prepares also for the Degree in Nursing, 4 in Engineering and 7 in Teaching.

Provision is also made to confer Degrees and Titles in Oriental Learning. There are 25 institutions preparing candidates for Oriental Titles, besides an institution approved in the Sangita Siromani Course.

OFFICERS AND STAFF OF THE UNIVERSITY

Chancellor :

Shri Sri Prakasa, B.A., LL.B. (Cantab.),
Barrister-at-Law, Governor of Madras.

Pro-Chancellor :

Sri C. Subramaniam, B.A., B.L., M.L.A.

Vice-Chancellor :

Lt.-Col. Sir A. Lakshmanaswami Mudaliar, B.A.,
M.D., LL.D., D.Sc., D.C.L., F.R.C.O.G.,
F.A.C.S., M.L.C.

Registrar :

Sri R. Ravi Varma, M.A. (Lond.).

Deputy Registrar :

Sri D. Sivasubramania Mudaliar, L.R.C.P., F.R.C.S.

Assistant Registrar :

Sri D. Narayana Ayyar.

Presidents of Faculties :

Arts ...	...	...	Vacant.
Science ...	...	...	Dr. T. S. Sadasivan
Law ...	...	...	Vacant.
Medicine ...	...	...	Dr. C. K. Prasada Rao.
Engineering ...	...	...	Lt.-Col. S. Paul, B.E., M.I.E. (Ind.).
Teaching ...	...	...	The Rev. T. R. Foulger, M.A.
Agriculture ...	...	...	Sri B. M. Lakshmiapati Mudaliar, B.E., M.E., M.R.A.S.E.

Veterinary Science	Sri I. M. Azizuddin, B.A., G.M.V.C., B.V.Sc., Ph.D.
Technology ...	... Dr. M. A. Govinda Rao.
Commerce ...	... Sri P. D. Swaminatha Mudaliyar, B.A.
Oriental Learning ...	... Sri T. M. Narayanaswami Pillai, M.A., B.L., M.L.C.
Fine Arts ...	... Sri P. Sambamurti, B.A., B.L.

Department of Indian Economics

Professor...	... Sri R. Balakrishna, M.A., Ph.D. (Lond.),
Reader ...	... Sri C. W. B. Zacharias, M.A.
Lecturer	... Sri D. Bright Singh, M.A., Ph. D.

Department of Indian History and Archaeology

Professor...	... Vacant.
Reader ...	... Sri T. V. Mahalingam, M.A., D.Litt.
Lecturer	... Sri M. Arokiyaswami, M.A., Ph.D.

Department of Politics and Public Administration

Reader Sri R. Bhaskaran, M.A.
------------	----------------------------

Department of Geography

Professor ...	... Sri George Kuriyan, B.A., B.Sc., Ph.D. (Lond.).
Lecturer	... Sri V. L. S. Prakasa Rao, M.A., D.Phil.

Department of Indian Philosophy

Professor Sri T. M. P. Mahadevan, M.A., Ph.D.
---------------	---

Department of Psychology

Professor	... Sri G. D. Boaz, M.A., D.Phil. (Oxon).
Lecturer	... Sri T. E. Shanmugam, M.A., M.Litt.

Department of Mathematics

Reader ...	... Sri V. S. Krishnan, M.A., M.Sc., B.T., D.Sc.
Lecturer	... Sri M. Venkataraman, M.A., Ph.D.

Department of Statistics

Reader	...	Sri D. V. Rajalakshman, M.A., M.Sc., Ph.D., (Manchester), F.S.S., Dip. Econ.
Lecturer	...	Sri G. S. Lingappaiah, M.Sc.

Chemistry

Professor of Organic Chemistry	Sri K. N. Menon, M.Sc., Ph.D. (Lond.).
Professor of Bio-chemistry	Sri P. Subbaraya Sarma, M.Sc., Ph.D. (Wisconsin).
Reader in Physical Chemistry	Sri M. Santhappa, B.A., M.Sc., Ph.D. (Manchester), Ph.D. (Lond.).
Reader in Organic Chemistry	Sri S. Swaminathan, B.Sc. (Hons.), Ph.D., A.I.I.Sc.
Lecturer in Bio-chemistry	Sri E. R. B. Shanmugasundaram, B.Sc. (Hons.).

Department of Botany

Professor	...	Sri T. S. Sadasivan, M.Sc., Ph.D. (Lond.), F.A.Sc. F.B.S.
Reader	...	Sri C. V. Subramanyam, M.A., Ph.D.
Lecturer	...	Sri K. Ramakrishnan, B.Sc. (Hons.), Ph.D.

Department of Zoology

Professor	...	Sri C. P. Gnanamuthu, M.A., D.Sc., F.Z.S.
Reader	...	Sri G. Krishnan, M.A., M.Sc., Ph.D. (Manchester).
Lecturer	...	Sri S. Krishnaswamy, M.Sc.

Department of Physics

Professor	...	Sri G. N. Ramachandran, M.A., M.Sc., Ph.D. (Cambridge), D.Sc., A.I.I.S.C., F.A.Sc.
Reader	...	Sri Alladi Ramakrishnan, M.A., Ph.D. (Manchester).

Department of Geology

Reader	...	Sri P. R. Jagapathy Naidu, M.Sc., D.Phil. (Basel).
--------	-----	--

Department of Anthropology

Lecturer ... Baron U. R. Ehrenfels, Ph.D. (Vienna).

Department of Constitutional and International Law

Professor ... Charles H. Alexandrowicz, Esq., LL.M.,
LL.D., Barrister-at-Law.

(ALAGAPPA CHETTIAR COLLEGE OF TECHNOLOGY,
GUINDY)

Department of Chemical Engineering

Director and Professor Dr. M. A. Govinda Rau, M.A., Ph.D.
(Lond.), M.I. Chem. E. (Lond.).
Reader in General Engineering Sri V. S. Jayaraman, B.E.
Reader in Chemical Engineering Sri G. S. Laddha, B.Sc., B.Sc. (Tech.),
M.Sc., Ch.E. (Purdue), Ph.D. (Purdue).
Reader in Applied Physical Chemistry Sri A. P. Madhavan Nair, M.A.
Senior Lecturer in Industrial Chemistry Sri P. B. Janardhan, B.Sc. (Hons.).
Senior Lecturer in Chemical Engineering Sri B. Chennakesavan, B.Sc. (Hons.).
Senior Lecturer in General Engineering Sri P. Murugamanickam, B.E.
Junior Lecturer in Chemical Engineering (Temporary) Sri K. Chandrasekharan, B.Sc. (Hons.),
B.Sc. (Tech.), M.Sc.

Textile Technology

Professor ... Sri B. C. Mohanty, B.Sc., M.Sc. (Leeds).
Reader (Weaving) Sri S. Krishnamurthi, B.Sc., B.Sc. (Tech.).
Senior Lecturer (Spinning) Mr. Rafiuddin Ahmad Quaraishi, B.Sc.,
B.Sc. (Tech.).
Junior Lecturer in Textile Chemistry Sri O. K. Balakrishnan, B.Sc.
Artist Designer ... Sri R. Madhavan.

Handloom	Ins-	Sri B.S. Venkatasubba Rao, B.Sc. (Textiles).
structor		
Instructor in		Sri T. Muniratnam.
Weaving		
Instructor in		Sri B. S. Krishnamurthy
Spinning		

Department of Sanskrit

Reader	...	Sri V. Raghavan, M.A., Ph.D.
Senior Lecturer		Sri K. Kunjunni Raja, M.A., Ph.D. (on leave in U. K.)
Junior Lecturer		Sri S. Subramania Sastri, M.A.

Department of Tamil

Professor (The Rev. Lazarus Professor)		Sri R. P. Sethu Pillai, B.A., B.L.
Senior Lecturer		Sri M.A. Dorai Rangaswamy, M.A., M.O.L.
Junior Lecturer		Sri B. R. Purushothama Naidu, Vidwan.

Department of Telugu

Senior Lecturer		Sri N. Venkata Rao, M.A.
Junior Lecturer		Sri S. Ramakrishna Sastry, M.A., B.O.L.

Department of Kannada

Reader	...	Sri M. Mariappa Bhat, M.A., L.T., Vidwan
Junior Lecturer		Sri M. Govinda Rao, M.A., B.O.L.

Department of Malayalam

Senior Lecturer		Sri S. Krishnan Nayar, M.A., Ph.D.
Junior Lecturer		Sri K. N. Ezhuthachan, M.A.

Department of Arabic, Persian and Urdu

Professor...	...	Sri S. Muhammad Hussain Nainar, M.A., LL.B., Ph.D. (Lond.), (on leave).
Junior Lecturer in Persian		Sri Abu Hashim Syed Ushaw, B.A.
Junior Lecturer in Urdu		Sri Muhammad Yousuf Kokan, M.A.

Department of Hindi

Senior Lecturer in Hindi Sri S. Shankar Raju Naidu, M.A.

Department of Indian Music

Reader ... Sri P. Sambamurthi, B.A., B.L.
 Veena Assistant... Sri M. Udaya Varma Raja.
 Vocal Assistant ... Sri K. N. Nilakanta Ayyar.
 Violin Assistant... Sri M. S. Subrahmanya Ayyar.
 Part-time Lecturer in French Sri E. Divien, B.A. (Hons.).
 Part-time Lecturer in German Mrs. Ellen Sharma, M.A., M.Ed.
 Librarian, University Library Sri R. Janardhanam Naidu, B.A., L.T., D.E. (Oxon.), D.L.S. (London), F.L.A.
 Asst. Librarian ... Sri V. S. Muthiah, M.A., L.T., A.M.L.S., (Michigan).
 Secretary, University Students' Information Bureau Sri G. A. Dharmarajan B.A. (Hons.), M.A. (Oxon).

CONSTITUENT COLLEGES**Faculties of Arts and Science**

<i>Name of College</i>	<i>Name of Principal</i>
Government Arts College, Madras	Sri M. Muhammad Ghani, B.A., (Hons.), L.T.
Loyola College, Madras ...	The Rev. T. A. Mathias, S.J., B.Sc. (Hons.)
Pachaiyappa's College, Madras	Sri R. Krishnamurti, M.A.
Presidency College, Madras	Sri T. Balakrishnan Nayar, M.A.,
Vivekananda College, Madras	Sri N. Sundaram Ayyar, M.A.
Queen Mary's College, Madras	Miss V. Koman, M.A., L.T.
Women's Christian College, Madras	Miss Eleanor D. Mason, M.A., Ph.D., D.Sc.
Stella Maris College, Madras	The Rev. Mother M. Lillian, F.M.M.
The Ethiraj College for Women, Madras	Mrs. Mona Hensman, M.B.E., B.A. (Hons.) M.P., J.P.
The New College, Madras ...	Sri Joseph Franco, O.B.E., M.A., L.T.

<i>Name of College</i>	<i>Name of Principal</i>
Agurchand Manmull Jain College, Madras	Sri S. Narasimha Ayyangar, B.A. (Hons.), L.T.
Sir Theagaraya Madras College,	Sri M. K. Shanmugam, M.A., L.T.

Faculty of Law

Law College, Madras	... Sri C. Kunhiraman, B.A., B.L. Barrister-at-Law.
---------------------	---

Faculty of Medicine

Medical College, Madras	... C. K. Prasada Rao, M.D.
Stanley Medical College, Madras	Sri K. N. Pisharoti, M.D., M.R.C.P., (Lond.), D.T.M. (Cal.).

Faculty of Engineering

College of Engineering (Guindy)	Lt.-Col. S. Paul, B.E., M.I.E. (Ind.).
---------------------------------	--

Faculty of Teaching

Lady Willingdon College, Madras	Training Miss M. Varughese, M.A.
Meston Training College, Madras	The Rev. T. R. Foulger, M.A.
St. Christopher's College, Madras	Training Miss G. R. Samuel, M.A., M.S., L.T.
Teachers' College, Madras	Sri T. P. Santanakrishna Nayudu, B.A., L.T.

Faculty of Veterinary Science

Madras Veterinary College, Madras	Sri I. M. Azizuddin, B. A., B.V.Sc., Ph.D.
-----------------------------------	--

AFFILIATED COLLEGES

Faculties of Arts and Science

Veerasaiva College, Bellary	<i>Second Grade Colleges (Intermediate)</i> Sri P. Ramananda Rao, M.A., L.T.
-----------------------------	---

<i>Name of College</i>	<i>Name of Principal</i>
Malabar Christian College, Kozhikode	Sri V.G.M. Pavamani, M. A., Ph.D.
P. S. G. Arts College, Coimbatore	Sri B. R. Krishnamurti Nayudu, M.A., L.T.
Nirmala College for Women, Coimbatore	Sr. Mary Josephine, M.A., B.T.
Pachaiyapp's College, Kancheepuram	... Sri M. Shanmugasundara Mudaliar, M.A., L.T.
Providence College for Women, Kozhikode	... Mother M. Gabrielle, A.C., B.A., L.T.
Fatima College for Women, Madurai	Miss N. Sakuntala, B.Sc. (Hons.)
Sri Sitalakshmi Ramaswami College, Tiruchirapali	... Mrs. J. Chellam, M.A.
Sri Venkateswara College for Women, Tirupatti.	Mrs. K. Ranganayaki Amma, M.A., L.T.
Sacred Heart College, Tirupattur (N. Arcot Dt.)	... The Rev. John Med, S.D.B.,
G. V. G. Visalakshi College for Women, Udamalpet	Miss Padmini Adiseshiah, M.A.
Voorhees College, Vellore	... Sri S. Jesuratnam, B.A., B.Sc.

First Grade College

Government Arts College, Ananthapur	R. H. P. Holman, Esq., M.A., L.T.
Government Arts College, Coimbatore	Sri K.P.G. Menon, B.A. (Hons.) (Oxon.) Barrister-at-Law.
Government Arts College, Cuddapah	Sri V. Habibullah, M.A., L.T.
St. Albert's College, Ernakulam	Sri L. M. Pylee, M.A., B.L.
St. Teresa's College (Women), Ernakulam	Sister M. Digna, M.A.
Farook College, Feroke	... Sri C. M. Syed Mohiddin Shah, M.A., L.T.
Alagappa College, Karaikudi	Sri A. N. Tampi, B.A. (Hons.), Barrister-at-Law.
Guruvayarappan College, Kozhikode	Sri A. Gopala Menon, M.A., B.Com.
Government College, Kumbakonam	... Sri A. Sankaran, M.A., Ph.D.
Osmania College, Kurnool	... Sri Moulvi Mohammad, M.A., LL.B.,

<i>Name of College</i>	<i>Name of Principal.</i>
Besant Theosophical College, Madanapalle	Sri B. R. Kumar, M.A.
American College, Madurai	Sri S. J. Savarirayan, M.A.
Lady Doak College, Madurai	Miss E. M. Thillayampalam, M.A., M.Sc., Ph.D.
Madura College, Madurai	Sri T. Totadri Ayyangar, M.A.
Thiagarajar College, Madurai	I. N. Menon, M.A., B.Litt.
Government College, Mangalore	Miss P. Seethammal, M.A., L.T.
St. Agnes College, Mangalore	Mother M. Vera, A.C., M.A.
St. Aloysius College, Mangalore	The Rev. E. J. Jacques, S.J., M.A., Barrister-at-Law.
Government College, Mencana	Sri K.P. Achutan Pillai, M.A.
Sarah Tucker College, Palamcottah	Miss Dora David, M.A.
St. John's College, Palamcottah	Sri J. Vedasiromani, B.A. (Hons.), B.L.
St. Xavier's College, Palamcottah	The Rev. K. A. Soosai, S.J., B.A. (Hons.)
Government Victoria College, Palghat	Sri P. Kochunni Panikkar, B.A. (Hons.), L.T.
The Rajah's College, Pudukottai	Sri T.S. Balasubrahmanya Iyer, M.A., L.T.
Salem College, Salem ...	Sri N. Srinivasan, M.A.
R. D. M. College, Sivaganga.	Sri B. S. Dandapani, M.A.
Madras Christian College, Tambaram	The Rev. A. J. Boyd, M.A., D.D.
Government Brennen College, Tellicherry	Sri P. P. Kallukaran, B.A. (Hons.), B.Sc. (Hons.), Ph.D.
Sacred Heart College, Thevara	The Rev. Theobald, C.D., M. Sc.
M. D. T. Hindu College, Tinnevely	Sri Alexander Gnanamuttu M.A., M.L.C.
Holy Cross College, Tiruchirappalli	Sr. Philomena, M.A.
Jamal Mohamed College, Tiruchirappalli	Sri M. J. Mohamed Sayeed, M.A., L.T.
National College, Tiruchirappalli	Sri S. Thothadri Ayyangar, M.A.
St. Joseph's College, Tiruchirappalli	The Rev. X. Ehrhart, S.J., M.A.
Sri Venkateswara College, Tirupati	Sri S. Palaniswami, M.A., L.T.

*Name of College**Name of Principal*

Sri Kerala Varma College, Trichur	Sri A. V. Akhileswara Ayyar, B.A. (Hons.).
St. Mary's College, Trichur	Sister M. Annunciata, B.Sc.
St. Thomas College, „	The Rev. Joseph Kallingal, M.A.
St. Mary's College, Tuticorin	Sister Teresita Mary, M.A., B.T.
V. O. Chidambaram College, Tuticorin	Sri A. Srinivasaraghavan, M.A.
Mahatma Gandhi Memorial College, Udipi	Sri H. Sunder Rao, B.A. (Hons.)
Islamiah College, Vaniyam- badi	Sri Saiyid Abdul Qadir, M.A., L.T.
V.H.N. Senthikumara Nadar College, Virudhunagar	Sri P. Thangarajan, B.Sc(Hons.)

Faculty of Agriculture

Agricultural College, Coim- batore	Sri R. Balasubramanian, B.A., B.Sc. (Ag.)
---------------------------------------	--

Faculty of Medicine

Christian Medical College, Vellore	Sri P. Kutumbiah, B.A., M.D., M.R.C.P.
---------------------------------------	---

Faculty of Engineering

College of Engineering, Anan- thapur	Sri N. S. Krishnaswami, B.E., M.I.E. (Ind.)
Government College of Tech- nology, Coimbatore	Major B. H. Marley, B.E., A.M.I.E., A.M.Tech.I.
P. S. G. & Sons' College of Technology, Peelamedu, Coimbatore	Sri G. R. Damodaran, B.Sc., (Engg.), A.M.I.E.E., M.P.
Dr. Alagappa Chettiar Col- lege of Engineering and Technology, Karaikudi.	Sri D. S. Venkanna, B.Sc., B.E., M.I.E., (Ind.)

Faculty of Teaching

Dr. Alagappa Chettiar Train- ing College, Karaikudi	S. Srinivasan, M.A., L.T. Dip.Econ.
Government Training Col- lege, Kozhikode	Mrs. Devaki Damodaran, M.A., L.T.
Government Training Col- lege, Kurnool	Sri K. V. Punniyah, M.A. (Hons.), B.Ed.

<i>Name of College</i>	<i>Name of Principal</i>
St. Ann's Training College, Mangalore	Sister M. Carmelita, A.C., M.A., L.T.
Government Training Col- lege, Mangalore	Sri B. Raghava Baliga, B.A., (Hons.), L.T.
St. Xavier's Training College, Palamcottah	The Rev. A. Bonhoure, S.J.
Sri Ramkrishna Mission Vi- dyalaya Training College, Perianaickenpalayam	Sri K. Arunachalam, M.A., L.T.

Faculty of Oriental Learning

Oriental College, Dharma- puram (Tanjore Dt.)	Sri Y. Mahalinga Sastri, M.A., B.L.
Rawzathul Ulloom Arabic College, Feroke (S. Malabar)	Sri Abus-Sabah Ahmed Ali, M.A.
S. B. S. Sanskrit College, Karkala	Sri K. V. Kamath, B.A. (Hons.), B.O.L., L.T.
Madrasa Islamiah Arabic College, Kurnool	Sri Moulvi Syed Zahrul- lah Hussaini Sahib Bahadur.
Sanskrit College and Swami- natha Sastry Vedanta Patasala, Mylapore	Sri Balasubrahmaniam Sastrigal.
Sri Venkataramana Dispen- sary and Ayurvedic College, Mylapore	Sri N. V. Krishna Variar.
Rameswaram Devasthanam Patasala, Madura	Sri V. Subrahmanya Ayyar, B.A.
Sri Ahobila Mutt Free Sanskrit College, Maduran- antakam (Chingleput)	Sri T. Ramaswami Aiyangar, M.A., L.T.
Sri Sivagnana Balaya Swami- gal Tamil College, Mailam (S. Arcot)	Sri S. Doraisami Iyer.
Ganesar Sentamil Kalloori, Melasivapuri (Pudukkottai)	Sri K. Arumugha Mudaliar, B.O.L.
Jamalia-i-Darus-Salam, Omerabad (North Arcot)	Sri Abdul Wajid.

*Name of College**Name of Principal*

Sri Nilakanta Central Sanskrit College, Pattambi (S. Malabar)	Sri K. V. Narayaara Sastri.
Sahitya Dipika Sanskrit College, Pavaratti (S. Malabar)	Sri P. T. Kuriakku.
Mahajana Sanskrit College, Perdala (S. Kanara)	Sri K. Shama Bhat, M.A.
Santalingar Tamil Kallori, Perur.	Sri C.M. Kamachandran, B.A., B.L.
Madeenathul Ulloom Arabic College, Pulikkal (S. Malabar)	Sri M. C. C. Abdurahman Moulavi.
Harihara Sanskrit College, Puthucode (S. Malabar)	Sri P. A. Krishna Sarma.
Madrasai-Muhammadiya Arabic College, Rayadrug (Bellary)	Sri Syed Ismail.
Sanskrit College, Sriperumbudur (Chingleput Dt.)	Sri N. Seshadri Ayyangar.
Karanthai Pulavar Kallori, Tanjore	Sri S. Swayamprakasam, B.A., B.L.
Sri Kasivasi Swaminatha Swamigal Sentamil Kallori, Tiruppanandal (Tanjore Dt.)	Sri K. M. Venkataramiah, M.A., B.O.L.
Sri Venkateswara College for Oriental Learning, Tirupati (Chittoor Dt.)	Sri P. V. Ramanujaswami, M.A.
Raja's College of Sanskrit and Tamil Studies, Tiruvadi (Tanjore Dt.)	Sri P. Tirugnanasambandam Pillai, M.A., L.T.
Dwaita Vedanta Sanskrit College, Udipi (South Kanara)	Sri K. Seshachar, M.A.
Bakiyatussalahat Arabic College, Vellore, (North Arcot)	Moulvi Shaik Adam Saheb.
Kalakshetra, Madras	Sri K. Sambosiva Iyer.

Constitution of the University

The principal authorities of the University are the Senate which consists of 249 members, the Syndicate which consists of 19 members, the Academic Council which consists of 301 members, the Standing Committee of the Academic Council which consists of 9 members, and the several Faculties, Boards of Studies and such other authorities as may be declared by the Statutes to be authorities of the University.

The Senate is the Supreme Governing Body of the University and the Syndicate is the Executive Body. The Academic Council is the Academic Authority of the University and deals with the general regulation of teaching and examination within the University.

Number of Students in the University for Several Examinations and Number of Students that were successful at the examinations during the year 1951.

670

MADRAS

Examination.	No. Examined.		No. Passed.		No. qualified for Degree or Title or Diploma or Certificate	
	March-July.	Sept.-Dec.	March-July.	Sept.-Dec.	March.	Sept.
Matriculation	1,874	...	441	...
Intermediate*	12,754	5,944	6,266	1,800
B.A.—Part I	3,027	1,229	2,196	575
B.A.—Part II	2,571	432	2,194	337
B.A.—Part III	2,927	821	1,854	374
						700

*Note :—

Whole Examination	Appeared		Part I Part II Part III	Passed.	
	Mar.	Sept.		Mar.	Sept.
...	9,343	810	...	5,392	113
Part I ...	1,025	1,553	...	1,661	230
Part II ...	205	451	...	3,342	531
Part III ...	2,181	3,130	...	676	44
				416	1,106
				160	329
				699	1,288

Examination.	No. Examined.		No. Passed.		No. qualified for Degree of Title or Diploma or Certificate	
	March- July.	Sept.- Dec.	March- July.	Sept.- Dec.	March	Sept.
M.L.	7	...	...	...	...	...
Pre-Registration (Dec. 1950) ...	...	27	...	27	...	...
First M.B. & B.S.—Part I ...	84	255	63	209	...	...
Do. —Part II ...	246	334	126	147	...	...
Second M.B. & B.S.—Part I ...	228	233	175	188	...	...
Do. —Part II ...	226	181	171	128	...	...
Do. (Old Regulation)— Part I ...	1	...	...	...	...	...
Do. do. Part II	1	...	1	...	...	...
Final M.B. & B.S.—Part I ...	203	226	142	169	...	...
Do. —Part II ...	237	260	110	139	110	139

Final M.B. & B.S. (O.R.) Part I	1	1	...	...	...	...
Do. (O.R.) Part II	1	1	...	...	...	...
M.D. ...	31	...	6	...	6	...
M.S. ...	28	...	4	...	4	...
M.Sc. ...	1	1	1	...	1	...
M.Sc. (By Examination)	...	15	...	15	...	15
D.G.O. ...	8	11	4	7	4	7
D.O. ...	9	4	5	3	5	3
D.L.O.—Part I	4	5	1	5	...	...
D.L.O.—Part II	3	7	1	2	1	2
B.S.Sc.—Part I (Jan.)	3	...	3	...	3	...
B.S.Sc.—Part II	...	3	...	1	...	1
B.Sc. (Pharmacy)—Prely. (December 1950)	...	2	...	2	...	...
B. Pharmacy-Preliminary	12	...	5	...	...	...

Examination.

Examination.	No. Examined.		No. Passed.		No. qualified for Degree or Title or Diploma or Certificate	
	March- July.	Sept.- Dec.	March- July.	Sept.- Dec.	March.	Sept.
B.Sc. (Pharmacy)—Final	7	13	4	7	4	7
Inter. Science in Nursing	3	14	3	12	...	...
B.Sc. (Nursing) October 1950 & April 1951	3	13	3	12	3	12
Diploma in Tuberculosis (Jan.)	9	...	8	...	8	...
B.Sc. (Tech.)—Part I	54	...	34	...	...	...
B.Sc. (Tech.)—Part II	38	...	31	...	31	...
First B.E.	308	58	254	43	...	...
Second B.E.	293	92	201	70	...	...

Third B.E.	...	...	...	321	131	191	74	...	...
B.E. Final	...	...	...	308	107	200	66	200	66
B.Sc. (Ag.) First Examination ...				63	...	58	...	...	...
Do. Second Examination				81	...	74	...	...	...
Do. Final Examination				86	...	80	...	80	...
B.V.Sc. (Preliminary) October 1950 and December 1951.				42	83	35	35	...	...
Do. (Intermediate Part I) October 1950 and December 1951				64	96	35	35	...	...
Do. (Do. Part II) October 1950 and December 1951				40	78	32	25	...	...
Do. (Final) (Old Regulation) October 1950 and December 1951				7	23	4	15	4	15
Do. (Final) (New Regulations) July 1950 and December 1951				14	77	9	26	9	26
B.Com.— Part I	...	...	...	811	263	592	202	} 328 168	
Do. Part II	...	...	...	686	193	585	164		
Do. Part III	...	...	...	774	278	363	147		

Examination.

No. qualified for
Degree or Title or
Diploma or Certificate

No. Passed.

No. Examined.

Sept.

March

Sept.-
Dec.March-
July.March-
July.Sept.-
Dec.B.Com. (Hons.)—Part I
Do. Part II
B.O.L.—Part I ...

Do. Part II ...

B.O.L. (Hons.)—Part I

B.O.L. (Hons.)—Part II

Oriental Titles—

Preliminary ...

Final

Entrance Test to Oriental Title
Course

...	26	7	21	4	...	...
...	22	...	21	...	21	...
...	13	4	7	4	7	...
...	11	...	8	...	}	
...	1	4	1	3	...	...
...	8	...	8	...	8	...
...	486	...	376	...	...	...
...	388	...	319	...	319	...
...	535	...	430	...	...	...

Entrance Test to Intermediate —Group D Course	215	...	82	...	...
Sangita Siromani—Preliminary	1	...	...	...	...
Do. —Final	4	...	3	...	...
Certificate in Modern European Languages—French	7	...	5	...	...
—German	29	...	22	...	22
Diploma in Modern European Languages—French	4	...	4	...	4
—German	8	...	8	...	8
Diploma in Economics	3	...	3	...	3
Diploma in Indian Music	15	...	13	...	13
Diploma in Politics and Public Administration	10	...	8	...	8
Certificate in Librarianship	16	...	16	...	16
Diploma in Librarianship	8	...	8	...	8
Diploma in Statistics	29	...	23	...	23

MADRAS

No. qualified for
Degree of Title or
Diploma or Certificate

No. Passed.

No. Examined.

Examination.

	March- July.	Sept.- Dec.	March- July.	Sept.- Dec.	March	Sept.
Diploma in Journalism	...	8	2	1	1	2
Certificate in Anthropology	...	3	...	3	3	...
Diploma in Anthropology	...	4	...	4	4	...
Diploma in Physical Education.		12	...	12	12	...
Total	...	37,029	12,995	22,754	11,707	3,381

Resources of the University :

1951-52.

Rs.

Government Grants	...	...	...	...	7,97,260
Fees	...	...	...	...	16,54,860
Other sources	...	...	...	...	9,36,124
Interest of Endowments	...	...	...	...	31,880
Total					34,20,124

Scholarships and Medals

There are a large number of endowed Scholarships, Medals and Prizes (numbering 120) awarded by the University with reference to accepted terms for proficiency in the several examinations. The amount of endowed funds in Government Securities, on the 31st March 1951, was Rs. 10,38,000.

Library, Museums, etc.

The University has a library, the affairs of which are managed by the Syndicate. It has an annual income of about Rs. 74,000 towards its upkeep and maintenance.

The University has up-to-date about 1,31,623 volumes in its main Library and 31,276 volumes in the sectional libraries, besides maps, paper and palm leaf manuscripts.

Provision for Research

University Studentships and Fellowships for research work are awarded in different subjects, the value of which ranges from Rs. 80 per month to Rs. 250 per month. Such Studentships have been awarded for research in Philosophy, Psychology, History, Economics, Politics and Public Administration, Mathematics, Statistics, Chemistry, Physics, Botany, Zoology, Anthropology, Geology, Physiology, Law, Teaching, Engineering, Medicine, Agriculture, Geography, Sanskrit, Hindi, Tamil, Telugu, Kannada, Malayalam, Urdu and Indian Music.

Publication and Research Work

The University generally undertakes the publication of the results of research, lectures and other theses.

Extension Work

The University arranges for a number of University Readerships, Lectures, Endowment Lectures, Vacation Lectures and certain Special Lectures.

University Extension Boards, constituted at Madras, Trichinopoly, Madura, Ernakulam, Coimbatore and Mangalore and such other centres as may be fixed from time to time, arrange special extension and popular lectures for the benefit of the public.

Besides, there are about a dozen endowments made specifically for the purpose of inviting experts to deliver courses of lectures on topics connected with Medicine, Engineering, Agriculture, Politics, Constitutional Law, Indian Philosophy, Aesthetics, Ancient Indian Culture, History, Economics and Sanskrit.

Teachers of the University also deliver advanced courses of lectures in their subjects.

Military Training

The N. C. C. at present consists of 3 Battalions, the first Battalion at Madras, the Second Battalion at Trichinopoly and the fourth Madras Battalion at Palghat, the Ananthapur Independent Company at Ananthapur the 3rd Madras Engineering Platoon, Guindy, Madras, the 2nd E.M.E. Section, Guindy, the 6th Madras Medical Company, Madras, the Palghat Independent Company, the 5th Madras Bty., Madras, and the 3rd Madras Air Squadron, Madras.

The strength in December 1952 was 54 Officers and 2009 cadets.

Budget : Provident Fund

The Budget Estimate of the University for each year (April

to March) is placed before the Senate for its consideration and adoption at its Annual Meeting in March of every year.

A Provident Fund has been instituted for the benefit of the permanent teachers and servants (other than the menial establishment) of the University with effect from April 1929, to which the members subscribe $6\frac{1}{3}$ per cent of their monthly salary in the case of persons drawing above Rs. 300 and $8\frac{1}{3}$ per cent in other cases and the University pays an equal contribution.

Provision for a pension *cum* provident fund for the University servants in the superior services entertained before 1st October 1952 has been made. Besides one-fourth pension, there is a provident fund to which the University contributes $6\frac{1}{4}$ per cent and the subscriber an amount not less than $6\frac{1}{4}$ per cent but not exceeding $12\frac{1}{2}$ per cent of his pay. University servants recruited after the 1st October 1952 shall in addition insure their lives for a minimum amount fixed by the Laws based on their salaries.

Women's Education

There are 20 constituent and affiliated colleges for the education of women under Arts and Teaching Faculties, recognized or affiliated up to the B.A. standard, and recognised in the Faculty of Teaching. Women students are also admitted in other colleges.

Students' Information Bureau, and its Activities

The Students' Advisory Committee has been replaced by the University Students' Information Bureau.

The main functions of the Bureau are:—

- (1) To furnish information and advice to Indians proceeding to foreign countries for further studies.
- (2) To circulate to colleges and other institutions in India the educational, financial and social information collected by the Bureau.
- (3) To communicate with the Central Bureau on behalf of students before they start.

Provision for Safeguarding Health, Medical Inspection, etc.

Provision has been made in the Regulations for inspection by qualified Medical Officers of students in the Junior Intermediate and Junior B.A. classes and for introduction of compulsory Physical Education in the Intermediate course.

University, Courses of Studies, Degrees and Examinations

Degrees, Titles and Diplomas.—The University offers in Arts the Degree of B.A. (Pass and Honours), M.A., M.Litt., Ph.D. and D.Litt., in Science the Degrees of B.Sc., (Pass and Honours), M.Sc. (by Exam.), M.Sc., Ph.D., and D.Sc. The Professional Degrees are B.T., M.Ed., B.L., M.L., LL.D., M.B. and B.Sc. M.D., M.S., B.S.Sc., B.Pharm., B.D.S., B.Sc. (Nursing), B.E., B.Sc. (Agriculture), B.V.Sc., B.Sc. (Tech.), B.Com. (Pass and Honours). Holders of Professional Degrees have also been made eligible for the Research Degrees. There are also Diplomas in Economics, in Politics and Public Administration, in Statistics, in Modern European Languages (French and German), in Geography, in Indian Music, in Librarianship, in Anthropology, in Journalism, in Physical Education in Analytical Chemistry, in Horticulture and in Social Service.

Certificate courses in French, German, Anthropology and Librarianship are also conducted side by side with the Diploma courses.

The following Diplomas have been instituted in the Faculty of Medicine :—

Diploma—In Midwifery (D.G.O.), Ophthalmology (D.O.), Oto-Rhino Laryngology (D.L.O.), Radiology, Venereology, Dermatology, Orthopaedics, and Tuberculosis (T.D.D.).

A Diploma in Co-operation has also been instituted, but the course thereof has not been opened. Under Oriental Studies, the Degrees and Titles conferred are B.O.L., B.O.L. (Hons.) and Siromani, Vidvan, Munshi-i-Fazil, Afzal-ul-Ulama, Adibi-i-Fazil, Tabib-i-Kamil, Afzal-ul-Atibba, Malpan and Soppar. Under Fine Arts, the Degree and Title conferred are B.Mus. (Bachelor of Music) and Sangita Siromani.

Admission to Courses of Study in the University

Candidates for admission to the University should have passed the S.S.L.C. Examination of a recognized Board and declared eligible for *University Courses or the Matriculation Examination* of this or of any other recognized University.

For the purpose of admission to courses of study in this University, the Intermediate Examinations of other Indian Universities and of duly constituted Boards of Secondary and Intermediate Education and Degree Examinations of other Indian Universities will be recognized as equivalent to the corresponding examinations of this University, subject to the following conditions :—

- (1) That the normal length of the course prescribed leading to the examination sought to be recognized shall not be less than that for the corresponding examination of this University ;
- (2) that the course of study for the examination sought to be recognized shall have been pursued in a University or in a college recognized by the University, provided that it shall be competent for the Syndicate in special cases to waive the above condition ; and
- (3) that in the case of admission to a professional course the restriction of subjects, if any, imposed on candidates of this University shall be applicable to candidates who have passed examinations of other Universities or Bodies.

Provision is also made for admission, under certain conditions, of *bona fide* teachers and librarians to Matriculation, Intermediate, B.A., M.A., B.Sc. (Honours), and B.T., Oriental Titles and B.O.L. Pass and Honours Degree Examinations.

Courses of Studies, Degrees and Examinations

Arts

- (1) *The Intermediate Examination.*—The course of study extends over two years. The subjects of study and the scheme of examination are : Part I English ; Part II-A Second Language ; and Part III—Optional Subjects.

The course under Part II will comprise text-books, grammar and translation, in the case of classical and foreign languages, and in the case of Indian Languages original composition.

The main object of the study of the Indian Languages is to train the student to use the language as a vehicle of current thought.

One of the following Languages at the option of the candidate—:

(a) Classical	Sanskrit	Arabic
	Greek	Persian
	Latin	Hebrew
(b) Modern		Syriac
	(1) Foreign	
	(2) Indian	German
		Marathi
	French	Oriya
	Tamil	Hindi
	Telugu	Bengali
	Kannada	Burmese
	Malayalam	Sinhalese
	Urdu	

Part III : Three subjects to be selected out of the following Groups A, B and C or Group D or Group E at the option of the candidate :—

Group A.—Mathematics, Physics, Chemistry, Natural Science, Geology, Geography, Psychology.

Group B.—Logic, Indian History, Ancient History, Modern History, Islamic History, A (Third) Language.

Group C.—Economic History of England and Economic Geography, Elements of Commerce and Accountancy, Agriculture, Electrical Engineering, Mechanical Engineering, Surveying, Drawing, and Painting, Indian Music, Western Music, Architecture, Household Art.

Group D.—The Preliminary Division of one of the following Oriental Titles : Siromani, Vidvan, Afzal-ul-Ulama, Munshi-i-Fazil, Adib-i-Fazil, Tabib-i-Kamil, Afzal-ul-Atibba, Malpan, Soppar ;

and a paper on translation from English into the selected language and *vice versa*.

Group E.—Music—Indian Music and Western Music or Western Music and Indian Music—the first subject will be the main subject.

Any candidate who is a member of the National Cadet Corps, shall have the option of taking Certificate 'B' of the National Cadet Corps of the University of Madras in place of one of the optional subjects or as an additional subject under Part III.

There will be three papers in (Part I)—English and two papers in (Part II)—Second Language and in (Part III)—Optional Subjects, two papers in each of the subjects selected in Groups A, B and C, and in Group D, the papers as for each of the preliminary part of the titles of Siromani, Vidvan, Afzal-ul-Ulama, Munshi-i-Fazil, Adib-i-Fazil, Tabib-i-Kamil, Afzal-ul-Atibba, Soppar, and Malpan (six papers) with an additional paper in Translation. And in Group E, 2 papers in the main subject and one paper in the other subject besides the practical tests.

The scheme of examination in Certificate 'B' of the National Cadet Corps of the University of Madras will be as laid down in the Syllabus.

A candidate who has passed Parts I and II and in three of the subjects in Part III as prescribed, or in Group D or in Group E shall be declared to have passed the Intermediate Examination.

A candidate who wishes to proceed to a Degree in Arts or Science shall be required to choose *two at least* of his optional subjects from either Group A or Group B. Candidates who qualify in Group D of the Intermediate may proceed to the B.O.L. Degree or the B.A. (Pass and Honours) Degree in certain subjects only.

A candidate shall be declared to have passed the examination if he obtains (1) not less than 35 per cent of the marks in English under Part I, (2) 35 per cent of the marks in the Second Language under Part II, and (3) 35 per cent in each of the three subjects selected under Part III, or 35 per cent in each division of Group D. Selected under Part III or 35 per cent in Group E.

Provision has been made for a practical examination in Physics, Chemistry, Natural Science, Geology, Geography and Household Art, and candidates should obtain a special minimum in these subjects.

desire to complete the B.A. Degree Examination in English shall be permitted to do so without further attendance in Shakespeare and Modern Poetry, provided they pass the examination in accordance with the conditions laid down in the Regulations.

Provision has also been made to permit Bachelors of Arts to qualify in a different optional group or a different Second Language. Such candidates are required to undergo a course for one year in a constituent or affiliated college in the subject in which they desire to qualify.

(3) *Bachelor of Arts (B.A.) Honours*.—The course extends over a period of three years after the candidates have passed the Intermediate Examination. Pass graduates are required to study only for two years. Candidates failing in an Honours Examination will not be allowed to re-appear for the same. A candidate for Honours who has not already graduated is required to pass a Preliminary Examination in English in (1) Composition, and (2) English Prose. In the case of candidates who have selected Branch VII (English Language and Literature), the preliminary examination will be in (1) composition as above and (2) The History of England treated in relation to the History of English Language and Literature. The subjects of study for this Examination are as follows: I.A. Mathematics, Pure (3 papers) Applied (3 papers) and special subjects (2 papers). I.B. Statistics (7 papers and a practical examination). II-A. Philosophy (7 papers and a *viva voce* examination); II-B. Psychology (7 papers and a *viva voce* examination); III. History (7 papers); IV. Economics (8 papers); V. Politics (7 papers); VI. VII. English Language and Literature (10 papers and a *viva voce* examination); VIII. Sanskrit Language and Literature (9 papers); IX. Arabic Language and Literature (9 papers); X. Syriac Language and Literature (9 papers); XI. A Dravidian Language or Urdu and its Literature (8 papers); XII. Hindi Language and Literature (8 papers); XIII. Islamic History and Culture (7 papers); XIV. Geography (8 papers and practical examination).

The minimum for a pass is 40 per cent in Part I, English and in Part II, 40 per cent of the total marks, and 30 per cent in each of the three divisions of the examination. Candidates getting 60 per cent or more are placed in the First Class, those getting not less than 50 per cent are placed in the Second Class, and those getting not less than 40 per cent in the Third Class. Candidates who have failed in the B.A. (Hons.) Degree Examination but who obtain $33\frac{1}{3}$ per cent in the total and 25 per cent

in each division of the examination are recommended for the B.A. Degree.

(4) *Master of Arts (M.A.).*—A Bachelor of Arts of this University (whether in Arts or Science subjects) who has passed the B.A. Degree Examination under the Old, New or Transitory Regulations, or the B.Sc. Degree Examination may, after an interval of two years from the date of qualifying for that Degree, appear for the M.A. Degree Examination, on the production of a certificate of attendance at a college after undergoing two years' post-graduate course.

A candidate who has qualified for the B.A. (Honours) or B.Sc. (Honours) or B.O.L. (Honours) Degree of this University may, without further examination, take the M.A. Degree at a subsequent convocation.

The course of studies, syllabuses, subjects, scheme of marks and time-tables, marks qualifying for a pass and divisions of the subjects for the examination for the Degree of Master of Arts, shall be the same in all Branches as for Part II of the Degree of Bachelor of Arts (Honours) or Bachelor of Science (Honours) conducted in the year in the subjects in the corresponding Branch.

Provision has also been made to permit a candidate for the B.A. (Honours) or B.Sc. (Honours) Degree Examination of this University who has been recommended for the B.A. or B.Sc. Degree, as the case may be, to appear for the M.A. Degree Examination in the same subject or subjects after one year's course in a college attached to this University.

Provision has also been made (1) for Bachelors of Arts and Bachelors of Science who had put in post-graduate attendance in colleges to appear for the M.A. Degree Examination at any later period without any further attendance, and (2) for Bachelors of Arts (Honours) or Masters of Arts in one subject to qualify in a different branch of subject, where no practical laboratory work is involved without any further attendance at a college.

(5) *Degree of Master of Letters (M.Litt.).*—A candidate for the M.Litt. Degree is required to have graduated in an Arts subject, and to work in an Institution recognized by or affiliated to this University under a teacher previously approved by the Syndicate for a period of two years or one year respectively, in the case of (1) a Bachelor of Arts or Bachelor of Music or Bachelor

of Oriental Learning and (2) Bachelor of Arts (Honours), or Master of Arts or Bachelor of Oriental Learning (Honours). Candidates are also required to submit to written and *viva voce* examinations besides the submission of thesis.

Graduates of other Universities are also eligible to submit thesis for the above degree, provided they have resided for two academic years, prior to the date of their application, within the University limits or area, and subject to their satisfying the other conditions laid down.

(6) The Degree of Doctor of Philosophy (Ph.D.) has been introduced as an intermediary research Degree in the Faculties of Arts, Science, Medicine, Engineering, Teaching, Agriculture, Veterinary Science, Technology, Fine Arts and Oriental Learning. A Bachelor of Arts or a Bachelor of Science, or a Bachelor of Music, or a Bachelor of Oriental Learning of this University or of a University recognised by the Syndicate as equivalent thereto may present himself for the Degree five years after qualifying for the Degree and not earlier than three years after registration. A Bachelor of Arts (Honours), or a Master of Arts, or a Bachelor of Science (Honours) or a Bachelor of Oriental Learning (Honours) or a Bachelor of Medicine and Surgery, or a Bachelor of Engineering, or a Bachelor of Science in Agriculture, or a Bachelor of Veterinary Science, or a Bachelor of Science in Technology may present himself for the Degree not earlier than three years after qualifying for the respective Degree, and not earlier than two years after registration. A Master of Letters, or a Master of Science or a Master of Oriental Learning may present himself for the Degree not earlier than one year after qualifying for the Degree and one year after registration. A Master of Education may present his thesis two years after qualifying for the Degree and not earlier than two years after registration. Candidates of other Universities will not be permitted to submit their thesis without a residential qualification of three years after registering for the Degree. Candidates who have already qualified for the M.Litt. or M.Sc. or M.Ed. Degree are exempted from working under supervision.

A candidate for the Ph.D. Degree who has not previously qualified for the Degree of M.Litt., M.Sc., M.Ed. or M.O.L. shall also be required to submit a written test (Part II) in addition to the submission of thesis (Part I).

(7) A Master of Letters or Master of Oriental Learning or a Doctor of Philosophy of this University may present himself for

the Degree of Doctor of Letters (D.Litt.) the highest Degree of this University in the Faculties of Arts, Teaching, Fine Arts and Oriental Learning three years and two years respectively after having qualified for the Degree of M.Litt. or M.O.L. or Ph.D. as the case may be. Ordinarily, the thesis shall be in the form of published papers. Candidates may be required to submit to an oral examination, if the Examiners so desire.

Science

(1) *The Intermediate Examination*.—The Intermediate Examination leading to the B.Sc. Degree courses is the same as in the Faculty of Arts.

(2) *Bachelor of Science (B.Sc.)*.—After passing the Intermediate Examination, a candidate must prosecute his studies for a period of two years. The subjects of study and the scheme of examination are as follows:—Part I (which may be taken at the end of the first year of study or at the end of the second year). Any one of the following languages:—

(i) English ; (ii) Classical—Sanskrit, Greek, Latin, Arabic, Persian, Hebrew, Syriac ; (iii) Modern : (a) Foreign—French, German ; (b) Indian—Tamil, Telugu, Kannada, Malayalam, Urdu, Marathi, Oriya, Hindi, Bengali, Burmese, Sinhalese.

Part I : English (2 papers)—(1) Composition, (2) Prose ; Indian Languages (2 papers)—(1) Translation, (2) Composition ; Other Languages (2 papers)—(1) Translation, (2) Prescribed text-books.

Part II : Any three of the following to be selected by the candidate of which one shall be main and the other two subsidiary subjects or Home Science.

Main Subjects:—

Mathematics (4 papers), Statistics (3 written and 2 practical), Physics (4 written and 2 practical), Chemistry (3 written and 2 practical), Botany (4 written and 2 practical), Zoology (4 written and 2 practical), Geology (4 written and 2 practical), Physiology (4 written and 2 practical), Geography (4 written and 2 practical), Home Science (6 written and 4 practical). Electrical Engineering and Mechanical Engineering can be taken only as subsidiary subjects with Physics as main subject. Surveying, Preliminary Prospecting, Ore Dressing and Assaying can be taken only as a subsidiary subject with Geology as Ma

and Anthropology as a subsidiary subject with Botany, Zoology, Geology or Geography as the Main Subject. In all the subsidiary subjects there shall be a written examination (2 papers) and a practical examination (except in the case of Mathematics). In order to obtain a pass, the minimum required is 35 per cent of the total marks in Part I and 35 per cent of the marks in each division of the examination in Part II, *viz.*, (1) Main written, (2) Main Practical, (3) Subsidiary I, and (4) Subsidiary II. For a pass in each Subsidiary, the minimum prescribed is 35 per cent in the written Part and 35 per cent in the practical; except in the case of Home Science, where the minimum required is 30 per cent in each of the three divisions and 35 per cent in the total. To obtain distinction in Part I, a candidate must obtain 60 per cent of the total marks. Successful candidates in Part II will be arranged in three classes: the First, consisting of those who obtain not less than 60 per cent, the Second of those who obtain not less than 50 per cent and the Third, the remainder.

Any candidate, who is a member of the National Cadet Corps and has passed Military Science—Certificate 'B' shall have the option of taking Military Science—Certificate 'C' in place of one of the subsidiary subjects or as an additional subject under Part II.

Candidates who fail to obtain a pass in Military Science Certificate 'C' and desire to complete the B.Sc. Degree Examination with another subsidiary subject under Part II in place of Military Science Certificate 'C' shall be permitted to do so without further attendance (theory and practical) in one of the subsidiary subjects provided they pass the examination in accordance with the conditions prescribed in the Regulations.

Provision has been made for candidates who have passed the B.A. Degree or B.A. (Hons.) Preliminary or B.Sc. (Hons.) Part I Examination to qualify for the B.Sc. Degree under certain conditions.

Provision has also been made for Bachelors of Science of this University to qualify again for the degree in additional subjects after one year's course in a college.

(3) *Bachelor of Science (B.Sc.) Honours.*—The course extends over three years after the Intermediate Examination. Graduates in Science seeking to study for Honours need study only for a period of two years; they are also exempted from Part I of the

examination and the examination in the subsidiary subjects. The subjects of study and the scheme of examination are as follows :—
 Part I : (English or French or German) (1) Prose, and (2) Composition on additional set books in the case of English and (1) Translation and (2) Prescribed text-books in the case of French or German. Candidates obtaining 40 per cent of the total marks are declared to have passed in this Part while those who obtain not less than 60 per cent are declared to have passed with distinction.
 Part II : I-A. Mathematics (8 papers), I-B. Statistics (7 papers and 2 practical examinations); or one of the following as main subject—II. Physics (6 written and 4 practical); III. Chemistry (6 written and 5 practical); IV. Botany (5 written and 4 practical); V. Zoology (5 written and 4 practical); VI. Geology (5 written and 4 practical); VII. Physiology (5 written and 4 practical); VIII. Geography (6 papers and 2 practical examinations); and any one of the following (other than the subject taken as the main subject) as a subsidiary subject—(1) Mathematics, (2) Physics, (3) Chemistry, (4) Botany, (5) Zoology, (6) Geology, (7) Physiology, (8) Geography. The examination in the subsidiary subjects shall be the same as for the subsidiary subject for the B.Sc. Degree. The other Regulations regarding the examination and the conferring of the Degree are the same as for the B.A. (Hons.). The percentage of marks required for a pass in Part II—is 35 in each division of the examination.

A Bachelor of Science or a Bachelor of Arts in a Science subject may qualify for B.Sc. (Hons.) Degree after two years' course in a college. Such students are exempted from the examination in Part I English and in the Subsidiary Subjects in which they have already passed; while students who have passed examinations of other Universities recognized by the Syndicate as equivalent to the B.Sc., or B.A. Degree Examination of this University should appear for and pass in the Main and Subsidiary Subjects in this University.

Provision has been made for Bachelors of Arts (Honours) in Science subjects or Bachelors of Science (Honours) to qualify in an additional Science Branch under certain conditions.

(4) *Master of Science (by examination)*.—The course extends over one year, after the B.Sc. (Honours) Degree Examination or the B.A. (Honours) Degree examination in a Science subject. The subjects of study and scheme of examination are as follows :—Mathematics (4 papers), Physics, Chemistry, Botany, Zoology and Geology (2 papers, 2 practicals and a *viva voce*).

Candidates offering Mathematics are declared to have passed the examination if they obtain 40 per cent of the total marks. In the case of subjects other than Mathematics, candidates are declared to have passed the examination if they obtain not less than (i) 35 per cent of the total marks in the two written papers (ii) 35 per cent in the practical and *viva voce* marks (with record note-books of Essay) and 40 per cent of the total marks.

Candidates who obtain not less than 60 per cent of the aggregate marks shall be placed in the first class.

(5) *Master of Science (M.Sc.) (by Research)*.—A candidate for the Degree is required to have graduated in Science and to work in a College or Research Institute under a Professor, or any other person previously approved by the Syndicate, for a period of two years or one year respectively, in the case of (1) Bachelors of Arts and Science, or (2) Bachelors of Arts and Science (Honours) or M.A., or B.E. or B.Sc. (Tech.) or B.Sc. (Ag.) and submit thereafter a thesis for approval. The candidate shall also take Part II of the examination which shall consist of a written, a practical (wherever possible) and *viva voce* examination.

Provision has been separately made for the admission of Graduates in Medicine and Veterinary Science to the M.Sc. Degree.

Provision has been made to recognise on individual merits Research institutes other than those managed by or attached to this University and Institutes or Departments attached to other Universities (in cases where there are no facilities for the graduates of this University to conduct research in any Institute within the Madras University area and the Teacher or Officers employed therein for the above purpose.

Graduates of other Universities are also eligible to submit thesis for the above degree, provided they have resided for two academic years, prior to the date of their application, within the University limits or area, and subject to their satisfying the other conditions laid down.

(6) *Doctor of Science (D.Sc.)*.—This is the highest Degree in Science and is open only to a Master of Science or Doctor of Philosophy of this University. A Master of Science may submit

his thesis three years after having qualified for the Degree, and a Ph.D. after a lapse of two years after qualifying for the Degree.

Courses of Studies and Degrees Leading to Professional

Law

(1) *Bachelor of Laws (B.L.)*.—Graduates of this or of any other recognized University are admitted to the course of study which extends over two years.

The First Examination in Law, to be held at the end of the first year, includes an examination in Jurisprudence (1 paper), Roman Law (1 paper), the Law of Contracts including Negotiable Instruments and Specific Relief (2 papers), the Law of Torts (1 paper) and Criminal Law (1 paper). Candidates are declared to have passed the examination if they obtain not less than $33\frac{1}{3}$ per cent of the marks in Jurisprudence, and Roman Law taken together, $33\frac{1}{3}$ per cent in Contracts and $33\frac{1}{3}$ per cent in the Law of Torts and Criminal Law taken together, and not less than 40 per cent of the total marks. Those who obtain not less than 60 per cent are placed in the First Class, while those obtaining less than 60 per cent and not less than 50 per cent are placed in the Second Class, the remaining successful candidates in the Third Class.

Provision is made for pass in compartments (Division). A candidate who fails in the whole examination, but obtains not less than 50 per cent of the marks in any Division will be exempted from re-examination in that Division.

The final examination in Law (B.L.) is open to those who have passed the First Examination in Law and have studied for a further period of one year. The subjects of study and the scheme of examination are as follows: Law of Property with special reference to the Transfer of Property Act, the Indian Trusts Act, the Indian Easements Act, and the Succession Act (2 papers), Hindu Law (1 paper), Muhammadan Law (1 paper), International Law of Peace (1 paper), the Law of Evidence (1 paper), and Indian Constitutional Law (1 paper).

The minimum for a pass is one-third of the marks in the Law of Property, one-third of the marks in Hindu and Muhammadan Law taken together, and one-third of the marks in Indian Constitutional Law, International Law of Peace and Evidence,

taken together and not less than 40 per cent of the total marks. Those who obtain not less than 60 per cent are placed in the First Class, while those obtaining less than 60 per cent and not less than 50 per cent are placed in the Second Class, the remaining successful candidates in the Third Class.

Provision is made in the Regulations for pass in compartments (Divisions). A candidate failing in the whole examination should obtain 50 per cent of the marks in the Division for a pass in that Division. He will be exempted from re-examination in the subjects included in the Division.

(2) *Master of Laws (M.L.)*.—No candidate will be admitted to the examination for the M.L. Degree unless he has passed not less than two years previously the examination for the B.L. Degree of this University or any other accepted Degree. Candidates of other Universities are, however, required to have resided within the University limits or area for a period of two academic years prior to the date of the examination and been during the period under the supervision of the Principal or other permanent member of the Law College staff or the Head of the Department of any branch of Law in the University.

One of the following branches may be offered :

Branch I—Jurisprudence.

Branch II—Constitutional Law and International Law.

Branch III—Crime and Tort.

Branch IV—Contracts including Mercantile Law.

Branch V—Hindu, Muhammadan and other Personal Laws.

Branch VI—Property.

(5 papers in each Branch)

Candidates who obtain not less than one-third of the marks in each paper and not less than 40 per cent on the whole, are declared to have passed the examination. Those who obtain 60 per cent or more of the aggregate are placed in the First Class, those obtaining less than 60 per cent and not less than 50 per cent are placed in the Second Class, the remaining successful candidates in the Third Class.

(3) *Doctor of Laws (LL.D.)*.—Candidates for this Degree may submit their theses one year after passing the M.L. Degree Examination of this University, and five years after passing the

B.L. Degree Examination. There may further be an oral examination.

Medicine

I.—Bachelor of Medicine and Surgery (M.B. & B.S.) (Revised Regulations)

The course of study extends over a period of five and half years, eight months of which should be spent in the study of the pre-clinical subjects and less than three years in the study of clinical subjects subsequent to passing the First M.B.B.S. examination and not less than 12 months as a student interneer subsequent to passing the Final M.B.B.S. Degree examination. Candidates for admission shall have passed the Intermediate examination in Arts and Science with Physics, Chemistry and Natural Science (Biology) which shall include a practical test in each of these subjects or any other examination accepted by the Syndicate as equivalent thereto.

The subjects of study and the scheme of examination for the First M.B.B.S. course are Anatomy and Physiology including Biochemistry. The examination in each subject is written, practical and oral.

The subjects of study and the scheme of examination for the second M.B.B.S. course are General Pathology with Bacteriology, Pharmacology including Pharmo-Therapeutics and Forensic Medicine. The examination in each of the subjects, Pathology and Pharmacology shall consist of a written paper, a practical examination and oral examination including the examination of autopsy record and in Forensic Medicine a written paper and an oral examination.

The course of study for the Final M.B.B.S. Degree examination shall extend over three years subsequent to the First M.B.B.S. examination which shall be spent at recognised hospitals. The scheme of examination is as follows: Part I: Ophthalmology and Part II: (1) Medicine including Pediatrics and Therapeutics and Applied Pathology; (2) Surgery including Orthopaedics, Ear, Nose, Throat and Applied Pathology; (3) Obstetrics and Gynaecology including Applied Pathology; (4) Preventive and Social Medicine. Part I shall consist of a written paper, clinical examination and oral examination; Part II—Medicine and Surgery—each subject consists of two written papers, a clinical examination and an oral examination; in the case of Surgery

alone an examination in operative surgery and surgical pathology; in the case of Obstetrics and Gynaecology one written paper, a clinical examination and an oral examination including questions on specimens and appliances; in the case of preventive and Social Medicine one written paper and an oral examination.

A candidate will be declared to have passed the examination if he obtains not less than one half of the marks. Those who obtain seventy per cent of the aggregate are placed in the First Class. Those who pass in First class and obtain seventy-five per cent of the marks are declared to have passed with distinction in that subject.

Candidates, who have passed the entire examination, will have prior to their admission to the Degree to put in internship under recognised Medical Officer in institutions recognised by the University. Three months of the period shall be spent in Public Health work preferably in rural areas and nine months in Medical and Surgical wards or in Medical and obstetric and Gynaecological wards by rotation of a period of three months in each. Such candidates shall before the award of the Degree produce a certificate of satisfactory completion of the student-internship.

(2) *Doctor of Medicine*—

The subjects of study and the scheme of examination are as follows:—

The Degree is open to:

(1) M.B. & B.S. Degree holders who have been engaged continuously for five years in the active practice of Medicine; or

(2) M.B. & B.S. Degree holders who have been House Surgeons in Teaching Hospitals recognised by or affiliated to the University for a period of one year, of which six months at least have been spent in the medical wards or been in the active practice of the profession for three years, and have held for a period of two years an appointment on the Medical side or in the Special Department concerned, as House Physician, Clinical Assistant or any similar appointment in a Teaching Hospital or Institute recognised by or affiliated to the University.

Branch I.—Medicine: Medicine including Pathology and Mental Diseases (2 papers), Tropical Medicine (1 paper), and a Clinical and Oral Examination including an examination of pathological specimens.

Branch II—Midwifery including Diseases of Women and Children: Medicine (1 paper), Midwifery and Diseases of Women and Children, including the pathology of these subjects (2 papers), an Essay on one or two set subjects in Midwifery and Diseases of Women (1 paper), and a clinical and oral examination in Midwifery and Diseases of Women and Children including an examination of pathological specimens.

Branch III A—Pathology (Main) and Bacteriology (Subsidiary): Medicine (1 paper), Pathology (2 papers), Bacteriology (1 paper), a practical and oral examination in advanced Pathology, and a practical examination in Bacteriology.

Branch III B—Bacteriology (Main) and Pathology (Subsidiary): Medicine (1 paper), Bacteriology (2 papers), Pathology (1 paper), a practical and oral examination in advanced Bacteriology, and a practical examination in Pathology.

Candidates are permitted to qualify in more than one Branch.

(3) *Master of Surgery.*—The conditions of admission to the examination are in the main identical with those prescribed for the M.D. Degree, with the difference that candidates should have specialised in Surgery in the practice of their profession, and the appointments held should have been on the surgical side.

The following Branches are offered—

Branch I—General Surgery: Surgery (2 papers), Surgical Pathology and Anatomy (1 paper), Clinical Examination, Operative Surgery and the use of instruments, and oral examination including slides, pathological specimens, X-Ray plates, etc.

Branch II—Special Subjects: Candidates may offer any one of the following special subjects:—

(a) Oto-Rhino-Laryngology, (b) Ophthalmology, (c) Orthopaedics. Candidates offering any of the specialities shall be examined in—

(i) Surgery (common paper) (1 paper). (ii) Special Subject, including Anatomy and Surgical Pathology of the Speciality (2 papers). (iii) A Clinical Examination in General Surgery. (iv) A Clinical Examination in the Special Subject. (v) Practical and Oral examination in the special subject including an

examination of pathological specimens, slides, X-Rays, use of special instruments and operations.

As in the case of the M.D. Degree, candidates of other Universities are also eligible for the Degree under certain conditions, and provision has been made for qualifying in more than one Branch.

(4) *Post-Graduate Diplomas in Medicine and Surgery.*—Diplomas have been instituted in the following subjects, and candidates who have passed the M.B. & B.S. Degree Examination of this University or an equivalent examination of another University are eligible for admission to the course therefor :—

1. Diploma in Gynaecology and Obstetrics.
2. Diploma in Venereology.
3. Diploma in Dermatology.
4. Diploma in Ophthalmology.
5. Diploma in Oto-Rhino-Laryngology.
6. Diploma in Radiology.
7. Diploma in Orthopaedics.
8. Diploma in Tuberculosis.

The course for each Diploma extends over a period of 12 months in a special hospital or the special wards of a General Hospital dealing with the particular speciality, and candidates for admission to the course should, after passing the M.B.&B.S. Degree Examination, have held a House appointment for a period of one year in a recognised hospital attached to a teaching institution of this University or of any other University accepted as equivalent thereto, or produce evidence of having been in practice for three years.

The examination for each of the Diplomas consists of written, clinical, oral and, or practical tests.

(5) *Bachelor of Sanitary Science.*—Candidates must be graduates in Medicine and Surgery of this University or hold corresponding degrees of other Universities or Licensing Bodies recognised for the purpose and the degree must be registered with the Madras Medical Council before the candidate is admitted to the examination. The course of study extends over a period of not less than twelve calendar months. The subjects of study and the scheme of examination are as follows:

Part I.—(1) Chemistry and Physics in relation to Public

Health, Climatology and Meteorology, (2) Bacteriology, (3) Medical Entomology and Parasitology. The examination in each subject includes a written paper, practical examination and a *viva voce*. Candidates who obtain not less than one-half of the aggregate marks in each subject in Part I of the examination shall be declared to have passed the examination.

Part II.—(1) Hygiene and Preventive Medicine and Public Health including Sanitary Engineering, (2) Epidemiology and Infectious Diseases, (3) Sanitary Law and Vital Statistics, (4) Public Health Administration. The examination in subjects (1) and (3) includes a written paper and a *viva voce*; that in (2) includes a written paper, a practical examination and a *viva voce*, and that in (4) consists of a practical examination only. Those who get not less than one-half of the aggregate marks in each subject in Part II of the examination shall be declared to have passed the examination.

Candidates who pass both parts of the examination at the first sitting and who obtain not less than two-thirds of the aggregate marks of both the parts together shall be declared to have passed in the First Class; and those obtaining less than two-third of the aggregate marks and not less than 50 per cent of the total marks shall be declared to have passed the examination in the Second Class. Candidates obtaining not less than 75 per cent of the marks in any subject shall be declared to have passed with distinction in that subject.

(6) *Bachelor of Pharmacy: B. Pharm.*—Candidates seeking admission to the course should have passed the Intermediate Examination of this or some other University with certain prescribed subjects. The course extends over a period of three academic years or nine terms, and there will be a Preliminary Examination at the end of the First year and a Final Examination consisting of two Parts: Part I to be taken at the end of the second year and Part II at the end of the third year. The subjects for the examination will be as follows:—

Preliminary: At the end of the first academic year in General Chemistry, Pharmaceutical Botany and Elementary Zoology, and General Physiology (written, practical and oral in each).

Final:

Part I.—At the end of the second academic year in Organic Chemistry and Pharmacology (Written, Practical and Oral in each).

Part II.—At the end of the third academic year in Pharmacognocny, Pharmaceutical Chemistry, and Pharmaceutics including Forensic Pharmacy and Bacteriology (Written, Practical and Oral).

Candidates for the Preliminary Examination will be declared to have passed the examination, if they obtain not less than one-half of the marks in the practical part and not less than one-half of the marks in the written and oral parts taken together.

A candidate for the Final examination shall be declared to have passed Part I of the examination if he obtains not less than one-half of the marks in the practical part and not less than one-half of the marks in the written and oral parts taken together in Organic Chemistry and Pharmacology.

A candidate shall be declared to have passed Part II of the examination if he obtains not less than one-half of the marks in the written and oral examinations taken together in each of the subjects, Pharmacognocny, Pharmaceutical Chemistry and Pharmaceutics, and not less than one-half of the marks in the practical examination in each of these subjects.

7. *Bachelor of Science in Nursing*: Candidates for admission to the course should have completed the age of seventeen on or before the date of admission to the course, passed the Matriculation Examination of this University or of any other Indian University, or the equivalent examination of any University outside India, or should have been declared eligible for admission to a course of study in this University on the results of the S.S.L.C. Examination held by the Government of Madras, or any other equivalent examination. They should also have been enrolled as Nurse-Pupils and performed the routine duties of a hospital as pupil nurse during the whole period of study in a Hospital affiliated to a Medical College and recognized for this purpose.

The course consists of two parts, one the Intermediate Examination in Science in Nursing, extending over 2 academic years, and the other the B. Sc. Degree Examination in Nursing extending over two academic years.

Intermediate.—The Examination comprises three parts: Part I—English (3 papers); Part II—Chemistry and Physics, Psychology, Anatomy and Physiology, Microbiology, and Nutrition and Diet Therapy, (one paper each); and Part III—Nursing and

Allied Arts (1 paper), Medical and Surgical Nursing Pharmacology and Therapeutics (1 paper), and Practical Examination.

Candidates shall be declared to have passed the examination if they obtain not less than 35 per cent of the marks in Part I English, 35 per cent of the marks in each of the subjects in Part II and 40 per cent in the aggregate and 40 per cent of the marks in each of the subjects in Part III and 50 per cent in the aggregate.

The B.Sc. (Nursing) Degree Examination comprises three parts, Part I—English or Tamil, Telugu, Kannada, Malayalam or Urdu (1 paper) ; Part II—Hygiene and Preventive Medicine, Professional Opportunities and Adjustments, World History and History of Nursing, and Sociology (1 paper each) ; Part III—General (1 paper), Nursing of Children and Gynaecological Nursing (1 paper), Ear, Nose and Throat (1 paper). Practical Advanced Nursing, and Records (2 Nursing care studies and one health teaching study).

A candidate shall be declared to have passed Part I of the examination if he obtains not less than 35 per cent of the total marks in that Part. He shall be declared to have passed Part II if he obtains not less than 35 per cent of marks in each subject and 40 per cent in the aggregate. He shall be declared to have passed Part III if he obtains not less than 40 per cent of the marks in each subject and 50 per cent in the aggregate.

8. *Bachelor of Dental Surgery*.—The course for the Degree of Bachelor of Dental Surgery extends over a period of four academic years and is open to candidates who have passed the Intermediate examination with Physics, Chemistry and Natural Science or an equivalent examination of a recognised University.

There are four examinations to be passed. The first examination will be held at the end of the first academic year. The scheme of examination is as follows :

- (1) Anatomy (written, practical and oral) (2) Physiology (written, practical and oral) and (3) Dental Metallurgy (written).

The course for the second examination extends over period of one academic year. The course consists of lectures and

practical or clinical work in all the subjects. The scheme of examination is as follows :

- (1) General and Dental Materia Medica, (2) General Pathology and Bacteriology, (3) Human and Comparative Dental Anatomy and Physiology and Dental Histology.

Candidates for the third year B. D. S. examination should undergo a course of instruction for one academic year. The examination consists of written, practical, clinical and oral examinations in the following subjects :

- (1) Medicine (2) Surgery and (3) Dental Surgery and Pathology with Dental Bacteriology.

The course for the final B.D.S. Degree examination extends over a period of one year. The scheme of examination is as follows :

- (1) Dental Prosthesis and Teeth Carving including Crown and Bridge Prosthesis (written, oral, practical and clinical), (2) Dental Jurisprudence and Ethics (written), (3) Operative Dentistry and Dental Radiology (written, oral and practical and clinical), (4) Oral Surgery and Orthodontia (written and oral).

Candidates obtaining not less than 50 per cent of the marks in the written and oral parts taken together will be declared to have passed the examination. Candidates obtaining 70 per cent of the aggregate marks will be placed in the first class.

Provision has also been made for the M.B.B.S. Degree holders to attend the course, which in their case, extends over two years.

9. *Bachelor of Indian Medicine* :—No College is offering instruction for the course.

Engineering

Bachelor of Engineering.—Candidates for the Degree shall be required to have passed the Intermediate Examination in Arts and Science in this University with Physics, Chemistry and Mathematics as optional subjects, or an examination in some other University accepted as equivalent thereto.

The course extends over four academic years.

The scheme of examination and the subjects for study are as follows :—

First B.E. Examination

Part I (Written)

Mathematics I, Physics, Chemistry, Applied Mechanics I, Civil Engineering I, Geometrical Drawing.

Part II (Practical)

Physics, Chemistry, Workshops.

Second B.E. Examination

Part I (Written)

Mathematics II, Electrical Engineering, Mechanical Engineering, Machine Drawing and Design, Applied Mechanics II, Civil Engineering II, Surveying or General Textile Technology, Building Drawing.

Part II (Practical)

Strength of Materials, Surveying or Textile Technology, Electrical Engineering, Laboratory Workshops.

Third B. E. Examination

CIVIL BRANCH

Part I (Written)

Mathematics III, Strength of Materials and Theory of Structures I, Hydraulics I, Structural Engineering I, Railway and Highway Engineering, Geology.

Part II (Practical)

Strength of Materials, Hydraulics, Surveying, Geology, Workshops.

MECHANICAL BRANCH

Part I (Written)

Mathematics III, Strength of Materials and Theory of

Structures I, Hydraulics I, Structural Engineering I or Auto-Engineering, Heat Engines I, Electrical Technology I.

Part II (Practical)

Strength of Materials Hydraulics, Electrical Engineering, Mechanical Engineering, Workshops.

ELECTRICAL BRANCH

Part I (Written)

Mathematics III, Strength of Materials and Theory of Structures I, Hydraulics I, Heat Engines I, Theory and Calculation of Electrical Apparatus I, Design and Drawing I.

Part II (Practical)

Strength of Materials, Hydraulics, Electrical Engineering, Mechanical Engineering, Workshops.

TELECOMMUNICATION BRANCH

Part I (Written)

Mathematics III, Strength of Materials and Theory of Structures I, Engineering Electronics I, Heat Engines I, Electrical Technology I, Design and Drawing I.

Part II (Practical)

Strength of Materials, Electrical Engineering, Radio Engineering, Mechanical Engineering, Workshops.

HIGHWAY BRANCH

Same as for Civil Branch.

AERONAUTICAL BRANCH

Part I (Written)

Mathematics III, Strength of Materials and Theory of Structures I, Hydraulics I, Applied Mechanics III and Simple Theory of Flight, Airplane Structures, Aircraft Engines and Control Systems.

Part II (Practical)

Strength of Materials, Hydraulics, Construction of Airplane Parts, Instruments—Testing and Calibration, Workshops.

AUTOMOTIVE BRANCH

Part I (Written)

Mathematics III, Strength of Materials and Theory of Structures I, Hydraulics I, Heat Engines I, Automotive Engines I, Automotive Engineering Design Practice.

Part II (Practical)

Strength of Materials, Hydraulics, Mechanical Engineering, Automotive Engineering, Workshops.

TEXTILE BRANCH

Part I (Written)

Textile Technology II, Preparation and Spinning I, Preparation and Weaving I, Fabric Structure and Designing I, Industrial Organization and Economics, Textile Chemistry (General).

Part II (Practical)

Textile Technology, Spinning, Weaving, Textile Chemistry.

FINAL B.E. DEGREE EXAMINATION

CIVIL BRANCH

Part I (Written)

Strength of Materials and Theory of Structures II, Structural Engineering II, Hydraulics and Hydraulics Machinery II (Civil), Design and Drawing I, Surveying, Irrigation, Docks, and Harbours, Sanitary Engineering, Design and Drawing II.

Part II (Practical)

Strength of Materials, Hydraulics, Surveying, Design and Drawing (*viva voce*).

Mechanical Branch Part I (Written)

Heat Engines II, Electrical Technology II, Theory of Machines, Hydraulics and Hydraulic Machinery II, (Mechanical and Electrical) or Aero-Engineering; Fuels, Gas Plant and Boilers, Workshop Practice and Machine Tools, Design and Drawing, Engineering Economics.

Part II (Practical)

Mechanical Engineering, Electrical Engineering, Hydraulics Workshops, Design and Drawing (*viva voce*).

ELECTRICAL BRANCH (*Written*)*Part I (Written)*

Heat Engines II, Electrical Theory and Measurements, Theory and Calculation of Electrical Apparatus II, Hydraulics and Hydraulic Machinery II (Mechanical and Electrical), Generation and Utilization, Transmission and Distribution, Design, Estimate and Drawing of Electric Supply Systems, Design and Drawing II.

Part II (Practical)

Electrical Engineering, Mechanical Engineering, Hydraulics, Workshops.

TELECOMMUNICATION BRANCH

Part I (Written)

Engineering Electronics II, High Frequency Measurements, Electrical Technology II, Transmission Circuits, Broadcasting (Reception) I, Broadcasting (Transmission) II, Wire Communication I (Telegraphy), Wire Communication II (Telephony).

Part II (Practical)

Electrical Engineering Workshops, Radio Engineering, Telegraphy and Telephony Laboratory, Design and Drawing (*viva voce*).

HIGHWAY BRANCH

Part I (Written)

Strength of Materials and Theory of Structures II, Bridge Engineering, Bridge Design and Drawing, Geology and Chemistry of Road Materials, Surveying, Highway Engineering I, Highway Engineering II, Highway Design and Drawing.

Part II (Practical)

Strength of Materials, Highway Engineering, Surveying, Design and Drawing (*viva voce*) Geology and Chemistry.

AERONAUTICAL BRANCH

Part I (Written)

Fluid Mechanics, Technical Aerodynamics, Air Navigation, Meteorology, Airplane Design, Aircraft Stress Analysis, Design Practice and Production Planning.

Part II (Practical)

Aircraft Drafting and Design (*viva voce*), Testing of Airplane Structures, Model Testing and Performance Reduction and Workshops.

AUTOMOTIVE BRANCH

Part I (Written)

Automotive Engines II, Chassis and its components, Theory of Machines, Metallurgy and materials of Construction and Specifications, Fuels, Gas Plant and Heat Transmission, Workshop Practice and Machine Tools, Chassis Design Practice, Engineering Economics and Motor Vehicles Trade Laws and Acts, Workshop Practice II, Design and Drawing.

Part II (Practical)

Automotive Engineering, Workshops (Automotive), Workshops (General), Design and Drawing (*viva voce*).

TEXTILE BRANCH

Part I (Written)

Preparation and Spinning II, Preparation and Weaving II,

Fabric Structure and Designing II, Cloth Analysis and Costing of Yarn and Cloth, Textile Engineering, Mill Planning and Organization, and Economics of Cotton Industry and Trade.

Part II (Practical)

Spinning, Weaving, Fabric Structure, Cloth Analysis.

Candidates may present themselves for the First, Second, Third and Final B.E. Examinations after undergoing the prescribed courses of study for each of the examinations for a period of one academic year in a Constituent or Affiliated College. Candidates may also present themselves simultaneously for (i) the First and Second B.E. Examinations, and (ii) the Third and Final B.E. Examinations.

Percentage of marks required for a pass.—(a) Candidates appearing only for the First or the Second B.E. Examination and obtaining not less than 35 per cent in each of the subjects of Part I, 45 per cent in each of the subjects of Part II and 40 per cent in the aggregate of Parts I and II, shall be declared to have passed the examination in which they appear.

(b) Candidates appearing for the First and the Second B.E. Examinations together or for a portion thereof, and obtaining not less than 35 per cent in each of the subjects of Part I, 45 per cent in each of the subjects of Part II and 40 per cent in the aggregate for the First and the Second B.E. Examinations shall be declared to have passed these examinations. Regulation (a) above will, however, be applicable to candidates who fail in the two examinations taken together.

(c) Candidates appearing only for the Third or the Final B.E. Examination and obtaining not less than 40 per cent in each of the subjects of Part I, 50 per cent in each of the subjects of Part II and 50 per cent in the aggregate of Parts I and II, shall be declared to have passed the examination in which they appear.

(d) Candidates appearing for the Third and the Final B.E. Examinations together, or for a portion thereof, and obtaining not less than 40 per cent in each of the subjects of Part I, 50 per cent in each of the subjects of Part II and 50 per cent of the aggregate of the Third and the Final B.E. Examinations, shall be declared to have passed these examinations. Regulation (c) above will, however, be applicable to candidates who fail to pass the two examinations together.

Passing minimum.—No candidate will be admitted to the B. E. Degree unless he has passed both the Practical Test and the Written Examination.

Teaching

Bachelor of Teaching (B.T.).—Candidates seeking admission to this degree must be graduates; the course of study extends over one year. The subjects of study and the scheme of examination are as follows:

Theory of Education and School Organization (A) (1 paper).

Educational Psychology and Sociology (B) (1 paper).

Methods of Teaching and Learning—General (C) (1 paper).

Methods of Teaching and Learning—Special (D) (Optional Subjects) (1 paper).

Health Education, Citizenship Training and Physical Education (E) (1 paper).

Practical Training (F):—

(1) Teaching Practice

(2) Practical working and maintenance of Audio-Visual apparatus, etc.

(3) Measurement and Evaluation.

(4) Arts and Crafts, or Home Science.

(5) Practical Aspects of Health Education, Citizenship Training and Physical Education.

Optional Subjects:—Not less than two and not more than three of the following:—Indian Languages; Classical Languages; English; Mathematics; Science; Home Science; Social Studies; Basic Education; Music; Arts and Crafts; Technical Subjects (Agriculture, Commerce, Engineering, etc.).

A candidate who fails in the Practical Test and passes in the Written Examination will be regarded as having failed in the Practical Test only and will be permitted to appear again for the Practical Test, and *vice versa*.

A candidate will not be permitted to appear for the Practical Test on more than two occasions: provided, however, it shall be competent for the Syndicate, if the Board of Examiners so recommend, to permit the candidate to appear on a third occasion.

A candidate will be declared to have passed the Written Examination if he obtains (i) not less than 35 per cent in each of

the five papers and (ii) not less than 40 per cent in the five papers taken together. All other candidates will be deemed to have failed in the Written Examination.

A candidate will be declared to have passed the Practical Test if he obtains (a) not less than 35 per cent in Teaching Practice (F-i), (b) not less than 35 per cent in subjects F/ii, iii, iv, v taken together, and (c) not less than 40 per cent in the 5 subjects taken together.

Classification of successful candidates.—Successful candidates will be classified separately for (a) the Written Examination and (b) the Practical Test. In each case, successful candidates who obtain not less than 60 per cent of the total marks will be placed in the First Class and those who obtain not less than 50 per cent of the total marks will be placed in the Second Class. The remaining successful candidates will be placed in the third Class.

Provision has been made in the Regulations for certificated *bona fide* trained teachers who have taken a Degree in this University or in some other recognised University to appear for the B.T. Degree Examination after undergoing a special vacation course and study for one term in a Teacher's College.

Provision has also been made for candidates to qualify in an additional subject or subjects under section (D), under certain conditions.

Master of Education (M.Ed.).—Candidates seeking admission to this degree should have passed the B.T. Degree examination of this University or a degree examination in Teaching of some other University accepted as equivalent thereto. No candidate shall be admitted to the examination unless he has taken the qualifying degree examination in Teaching. The course may be taken immediately after the B.T. or equivalent course, or after an interval of some years under certain conditions. The course will last for one academic year. The subjects of study and the scheme of examination are as follows:—

- A. Philosophy of Education (including some aspects of Educational Sociology and Educational Psychology) (1 paper);
- B. Problems of Education in Modern India in their Comparative Setting (1 paper);
- C. 1. Educational Administration or C. 2. History and Evolution of Educational Thought or C. 3. Educational Sociology or C. 4. Advanced Educational

Psychology (2 papers) ; and Thesis (the subject for which should be submitted for approval not later than 31st August). Candidates will be declared to have passed the examination if they obtain not less than 50 per cent of the marks in each of any two of the papers and not less than 35 per cent in each of the remaining papers and have satisfied the Examiners in the thesis.

Candidates who fail either in the written examination or the thesis will be given one more chance after putting in a further course of study.

AGRICULTURE

Bachelor of Science (Agriculture) B.Sc. (Ag.).—Candidates for the degree should have passed the Intermediate examination with Chemistry and any two of the following subjects as optional subjects :—Mathematics, Physics, Natural Science, Botany, Zoology including Human Physiology, and Agriculture; and thereafter pursued a course of study for a period of three years at a College of Agriculture under the University and passed the prescribed examinations. The subjects of study comprising both Theoretical and Practical instruction are as follows :—Agronomy, Agricultural Botany, Agricultural Chemistry, Agricultural Zoology, Agricultural Engineering, Animal Hygiene and Horticulture. It will include a course of practical farm training for a period of Six months in any of the Agricultural Research Stations or approved private farms in the state. There are three examinations to be passed by candidates to qualify for the degree, an examination being held at the end of each year. Passing the First Examination is compulsory before a candidate is allowed to sit for the Second Examination.

The subjects for the three examinations are as follows :—

First Examination.—Agronomy, Botany, Chemistry, Zoology and Agricultural Engineering (Civil).

Second Examination.—Agronomy—Plant Husbandry ; Agricultural Botany, Agricultural Chemistry, Agricultural Entomology, Agricultural Engineering (Mechanical), Animal Hygiene.

Final Examination.—Agronomy I—Agricultural Economics including Co-operation and propaganda; Agronomy II—Animal Husbandry and Farm Management; Agricultural Botany I—Plant Breeding and Genetics; Agricultural Botany II—Plant Pathology and Cryptogams; Agricultural Chemistry and Horticulture.

The examination in each subject shall be both written and practical. The minimum marks for a pass are 40 per cent of the marks in each of the subjects for the examinations.

Bachelor of Veterinary Science (B.V.Sc.).—After passing the Intermediate Examination with Chemistry or Natural Science as one of the optional subjects, a candidate must prosecute his studies for a period of four academic years and one term at a College of Veterinary Science attached to the University and pass the prescribed examinations. The subjects of study comprising both Theoretical and Practical instruction are as follows:—

Preliminary: (a) Biology; (b) Chemistry; (c) Animal Husbandry I.

Intermediate (Part I)—(a) Anatomy including Histology and Embryology; (b) Physiology including Experimental Physiology and Biochemistry; (c) Animal Husbandry Part II; (Hygiene) (d) Parasitology.

(Part II)—(a) Pathology and Bacteriology including Immunology; (b) Pharmacology including Materia Medica and Pharmacy; (c) Animal Husbandry, III.

Final (a) Medicine including Therapeutics and Toxicology; (b) Surgery including Soundness, Obstetrics and Veterinary Jurisprudence; (c) Animal Husbandry, IV and (d) Meat Inspection.

There are four examinations to be passed by candidate to qualify for the Degree; the first three examinations are held at the end of each year and the Final at the end of the course. Passing in the Preliminary Examination is compulsory before a candidate is allowed to sit for the Intermediate examination. No candidate will be admitted to the Final Examination unless he has passed the Intermediate Part II Examination. The examination in each subject shall be written, practical and oral. The minimum marks for a pass are 50 per cent of the marks in each of the subjects for the examinations.

Provision has been made for practical training in a farm for $1\frac{1}{2}$ months at the end of the first, second and third year courses of study and for 2 months during the fourth term of the final year course.

DEGREE OF BACHELOR OF SCIENCE IN TECHNOLOGY

B.Sc. (Tech.)

The following Branches of study have been instituted :—

- (a) Chemical Engineering, (b) Textile Chemistry,
(c) Textile Technology, (d) Leather Technology,
(e) Pharmaceuticals and Fine Chemicals, (f) Electro-
Chemistry, (g) Industrial Fermentation.

The course extends over two academic years.

Candidates for admission to the course should have passed the B.A. or B.Sc. Degree Examination of this University or of some other University accepted as equivalent thereto, and should have offered Mathematics as one of their optional subjects for the Intermediate Examination. Candidates selecting branches other than (c) and (e) should have offered for the B.A. or B.Sc. Examination, Chemistry as main and Physics as subsidiary subject. Those offering Branch (c) should have taken Physics or Chemistry as Main and the other as subsidiary subject and those offering Branch (e) should have taken Chemistry as Main and Botany as subsidiary subjects.

The examination in each Branch consists of two Parts, of which Part I may be taken at the end of the first year of the course. Except under certain conditions candidates will not be permitted to take Part II of the examination unless they have passed Part I.

Every candidate should put in a practical course of three months in the case of Chemical Engineering, and not less than six months in the case of Leather and Textiles, in an approved Mill or Factory, before supplicating for the Degree.

Candidates for Branch (a) Chemical Engineering will also be required to work on the design of a prescribed Manufacturing Plant and/or write a critical report on a special technical subject. Candidates will be given nearly 3 months' time for answering these questions.

Degree of Bachelor of Commerce

The course of study for the Degree extends over two academic years, and candidates for admission should have passed the Intermediate Examination of this University or an examination of some other University recognised by the Syndicate as equivalent thereto.

The scheme of examination and course of study are as follows :—

Part I.—English (2 papers) Prose and Composition.

Part II.—A Second Language (different from the one offered for the Intermediate Examination) (1 paper) Composition and Translation.

Part III.—(8 papers) Economics-General ; Banking, Theory and Practice ; Mercantile Law ; Business Organization and Commercial Geography ; Advanced Accounts ; Auditing ; Precise Writing and Business Correspondence and Optional Subject, to be selected from the following list :—

- (a) Transport, (b) Insurance, (c) Co-operation,
(d) Statistical Methods and their application to Commerce.

Part I of the examination may be taken at the end of the first year of the course.

Provision has been made whereby candidates who have completely passed the B.A., B.A. (Hons.), B. Sc. (Pass), B.Sc. (Hons.), B.O.L. (Pass), or B.O.L. (Hons.) Degree Examination and desire to proceed to the B. Com. Degree Examination after putting in the prescribed attendance are exempted from being examined in English—Part I; candidates who have passed the B.A. Degree, or the B.A. (Honours) Degree in any of the Groups or Branches where “General Economics” is part of the course of study, may likewise have the option of exemption from examination in “Economics-General” under Part III.

Candidates who fail in any Part or Parts may complete the examination on a subsequent occasion without putting in any additional course of study.

Degree of Bachelor of Commerce (Honours)

The course of study for the Degree extends over three academic years, and candidates should have passed the Intermediate Examination of this University or an examination of some other University recognised by the Syndicate as equivalent thereto. Commerce graduates are required to study only for two years.

The scheme of examination and course of study are as follows :—

Part I: Preliminary.—English Composition (1 paper), and Precise Writing and Business Correspondence (1 paper).

Part II: Final Examination.—(3 papers)—General Economics, Business organization, Mercantile Law, Banking, Advanced Accounts, Auditing and one of the following Optional subjects :—(2 papers)

- (a) Rural Economics, and History and Principles of Co-operation and Co-operative Laws ;
- (b) Industrial Law and Cost Accounts.
- (c) Income-tax Law and Practice.
- (d) Trade and Transport.
- (e) Insurance and Actuarial Science
- (f) Public Accounts and Financial Administration.

Practical Training.—Candidates should undergo practical training on one day in the week for eight academic terms, and in addition for a period of three months either at the end of the second year or at the beginning of the third year of the course. The other conditions *re.* appearance at the examinations, withdrawal, etc., are the same as those for B.A. (Honours).

Titles and Degrees in Oriental Learning

1. *Siromani.*—Added to Mimamsa, Vedanta, Nyaya, Vyakarana, Sahitya, Jyotisha or Ayurveda.

2. *Vidvan.*—In the case of candidates who have offered for examinations either (a) Sanskrit and one of the Languages Tamil, Telugu, Kannada, Malayalam, Marathi, Oriya, Hindi, or (b) Tamil, Telugu, Kannada, Malayalam, Marathi, Oriya or Hindi as the main language with Sanskrit as a subsidiary language, or (c) Tamil, Telugu, Kannada, or Malayalam alone.

The course of study in each case extends over a period of four years. Candidates for the Siromani examination have to study and be examined in History of Sanskrit Language and Literature, and prescribed text-books relating to Sanskrit Literature, Tarka, Mimamsa, and Vyakarana, Manthras, Brahmanas, Upanishads, the Grihya and Dharma Sutras and the Smritis. For the Vidvan examination a candidate has to study History of Sanskrit Language and Literature, text-books prescribed for Grammar, Prosody and Poetics and also an Indian Language.

3. Provision has been made for the following Titles in Arabic, Persian and Urdu:—

Afzal-ul-Ulama.—(Arabic alone).

Munshi-i-Fazil.—(Persian and Urdu).

Adib-i-Fazil.—(Urdu and Persian or Tamil or Malayalam).

Tabib-i-Kamil.—(Tibb-i-Qanuni in Persian and Urdu).

Afzal-ul-Atibba.—(Tibb-i-Qanuni in Arabic and Urdu).

4. Provision has also been made for the following two titles:—

Malpan.—(Syriac alone).

Soppar.—(Syriac and Hebrew).

All these examinations leading to Titles are divided into two parts: Preliminary and Final. Candidates who obtain between 40 and 50 per cent of the total marks are declared to have passed the examination in the Third Class; those secure between 50 and 60 per cent are ranked in the Second Class; and those who get 60 per cent and above are ranked in the First Class.

5. *Bachelor of Oriental Learning*.—The Degree of Bachelor of Oriental Learning is open to candidates who have passed the Intermediate Examination in Arts and Science of this University with Group D in Part III, or an examination accepted by the Syndicate as equivalent thereto and have pursued subsequently a course of study for a period of not less than two academic years in a Constituent or Affiliated College in the subjects prescribed for the B.O.L. Degree Examination and have passed the examinations for the Degree.

The course shall consist of two parts and comprise instruction

in the following subjects and the scheme of examination shall be as follows :—

Part I.—English.—The examination shall be the same as for Part I for the B.Sc. (Pass) Degree.

Part II.—General Indian History and the Final Division of any one of the Groups prescribed for the Oriental Titles.

A candidate who has qualified for the B.A. or B.Sc (Pass or Honours) or has passed only Part I of the B.A. or B.Sc. (Pass or Honours), or B.O.L. (Honours) or has passed completely the B.A., B.A.(Hons.), B.Sc.(Pass), B.Sc.(Hons.), B.Com.(Pass) or B.O.L. (Hons.) Degree Examination of this University shall be exempted from the course and examination in Part I of the B.O.L. Degree.

A candidate will be permitted to qualify for the Degree in more than one Group, after undergoing the course of study for the additional Group for a period of not less than one academic year. He will be exempted from examination in Part I, General Indian History under Part II, and in certain subjects which are common to the Group in which he has already qualified, and in the new Group which he offers.

6. *Bachelor of Oriental Learning (Honours).*—Candidates for admission to the B.O.L. (Honours) Degree should have passed the Intermediate Examination in Arts and Science of this University with Group D, or an examination accepted as equivalent thereto, and have subsequently undergone a prescribed course of study in a Constituent or Affiliated College for a period of not less than three academic years.

The course and examination for the Degree consists of two parts, Part I—English—which is the same as the Preliminary Part of the B.A. (Honours) Degree Examination, and Part II, for which one of the languages in the following three Branches may be offered :—

Branch I.—Sanskrit.

Branch II.—Tamil, Telugu, Kannada, Malayalam.

Branch III.—Arabic, Persian, Urdu.

The examination under each Branch consists of 7 written

papers, and the paper on "The History of India" or "Early Islamic History" as the case may be, [same as for the B.A. (Honours) Degree examination] and may be taken only after passing Part I of the examination.

No candidate shall be permitted to undergo the Final Examination more than once. A candidate for the Final Examination may withdraw from the Examination on the first occasion, and shall be permitted to appear for the examination in the following year without producing any additional certificate of attendance.

A candidate for the Degree shall be required to appear for the Final Examination not later than the end of the fourth year after commencing the course in a College; or in the case of a B.O.L. (Pass) Degree-holder proceeding to the Honours Degree Examination, not later than three years after commencing the course in a college.

The percentage of marks required for a pass is 40 per cent of the aggregate and 30 per cent in each Division. Candidates failing in the examination for Honours, but obtaining $33\frac{1}{3}$ per cent of the aggregate marks and not less than 25 per cent in each Division may be recommended for the B.O.L. (Pass) Degree. Candidates failing in the examination completely may be permitted to appear for the B.O.L. (Pass) Degree Examination without undergoing any further course in a college.

A candidate who has already qualified for the Degree in one Branch may qualify further in an additional Branch after undergoing the course of study prescribed therefor for not less than two academic years, exemption being granted in Part I of the Examination, and in certain subjects of Part II of the examination which are common.

Sangita Siromani Title

Candidates for admission to the course should have either

- (a) passed the S.S.L.C. Examination of the Government of Madras, with Indian Music as their optional subject, and been declared eligible for admission to a course of study in this University; or
- (b) passed the S.S.L.C. Examination of the Government of Madras without Indian Music as their optional subject, and declared eligible for admission to a course of

study in this University and in addition to have passed the Government Technical Examination in Indian Music (Higher Grade) ; or the Teachers' Certificate Examination in Indian Music ; or

- (c) passed the Government Technical Examination in Indian Music (Higher Grade) or the Teachers' Certificate Examination in Indian Music, and in English of the Matriculation Examination of this University.

The course of study extends over four academic years.

The Examination shall consist of two Parts, the Preliminary Examination at the end of the second year, and the Final Examination at the end of the fourth year, and no candidate shall be admitted to the Final Examination unless he has passed the Preliminary Examination at least one year previously.

The course of study and scheme of examination are as follows :—

Preliminary

Part I—

Theory of Indian Music I (including prescribed classical works) (1 paper); and Theory of Indian Music II (including the History of Indian Music) (1 paper).

Part II—

Selected Language (2 papers)—Sanskrit, Tamil, Telugu, Kannada or Malayalam—same as for the Intermediate Examination under Part II.

Part III—

Practical—Vocal, Veena, Violin, Gottuvadyam, Naga-swaram. Any two, one of which shall be of the main standard, and the other of the subsidiary standard, provided vocal shall be one of the subjects chosen.

Final

Part I—

Theory of Indian Music I, Theory of Indian Music II (including prescribed classical works) and History of Indian Music.

Part II—

Practical (Main) I, Practical (Main) II, Practical (Subsidiary) or Musicology.

Candidates who have passed in Part II of the Intermediate or B.A. Degree Examination with one of the languages to be offered under Part II of the Preliminary Examination will be exempted from examination in that part of the Preliminary Examination.

Candidates who have passed the Intermediate Examination with Indian Music as one of their subjects under Part III will be permitted to take the Preliminary Examination without the prescribed certificate of attendance.

Candidates who have passed the B.A. Degree Examination with Indian Music under Part III will be exempted from the Preliminary Examination and permitted to take the Final Examination after undergoing the course for one academic year.

Candidates who have not offered for the Intermediate or B.A. Degree Examination one of the languages prescribed under Part II of the Preliminary Examination will be required to undergo the course for one academic year and pass the examination in one of those languages not less than one academic year before appearing for the Final Examination, provided that the above course may be taken concurrently with the Sangita Siromani Course.

All the exemptions referred to above may be availed of only by candidates who have passed the respective examinations of this University.

B. Mus. Degree

Candidates seeking admission to this course should have passed the Intermediate Examination of this or some other recognized University with Group E.—Indian Music and outlines of Western Music—under Part III. The course extends over a period of two years and consists of three parts—Part I: (Languages same as those for Part I of the B.Sc. Degree) (2 papers); Part II: History of Indian Music (1 paper), Theory of Indian Music including prescribed text-books (2 papers) and a Special Subject (1 paper); Part III: (Two practical tests in Vocal, and one practical test in one out of Veena, Violin, Flute, Gottuvadyam and Nagaswaram).

Candidates will be declared to have passed in the three parts of the examination if they obtain not less than 40 per cent in each of the three parts respectively.

Diploma in Economics

The course extends over a period of one year for full-time students and over two years for part-time students. The subjects of study and the scheme of examination are as follows:—

- (1) Economics, (2) Statistical Methods, (3) Recent Economic History and Economic Geography, (4) Rural Economics, (5) Social Economics (including Elements of Social Institutions), (6) A special subject in (4) or (5).

Every candidate should also submit a short thesis based on original enquiry on some problem of limited scope connected with either (4) or (5).

Diploma in Politics and Public Administration

This course is a part-time one and extends over a period of two academic years. The subjects of study are as follows:—

- (1) Politics, (2) Public Administration—Principles and Practice, (3) Constitutional and Administrative History of Modern India, (4) Economics, (5) Public Finance, (6) One of the following optionals in Law—Law of Contract, Indian Penal Code, Land Tenures, Constitutional Law, (7) One of the following optionals in Commerce—Business Organization, Public Accounts and Audit.

The admission to the course is open to persons who have passed the Intermediate Examination and such others as are certified by the Head of the Department to be fit to undergo the course.

Diploma in Co-operation

The course is a full-time one and extends over one academic year. It is open to persons who have passed the B.A. or B.A. (Hons.) Degree Examination in History or Economics of this University or an equivalent examination, and to persons, who,

after passing the Intermediate Examination are engaged in Co-operative service for not less than two years.

The subjects for study are as follows: (i) Economics (a) Agricultural Organization and (b) Industrial and Commercial Organization. (ii) Co-operation—History and Principles. (iii) Co-operation—Law and Practice. (iv) Banking—Law and Practice. (v) Accountancy. (vi) Auditing.

There will also be a course of Practical Training and an examination in one of the following subjects: (a) Co-operative Banking; (b) Land Mortgage Banking; (c) Stores; (d) Marketing.

The course for this Diploma has not, however been started in any institution.

Diploma in Statistics

The course is a part-time one extending over two academic years or six terms, and is open to candidates who have qualified for a degree in any recognized University.

The subjects for study are: (1) Mathematics, (2) Economics, (3) Statistical Methods, (4) Applied Statistics, (5) and (6) Two of the following subjects—Actuarial Statistics, Economic Statistics, Mathematical Economics and Econometrics, Vital Statistics, and Population Problems, Agricultural Statistics (including Design of Experiments).

There will also be a practical examination.

Certificates and Diplomas in French and in German

Certificate course extends over one academic year or three terms and Diploma course extends over a period of two academic years or six terms. For the purpose of entrance to the course no previous acquaintance with the language is necessary and the candidate will be taught on a syllabus and text-books to be prescribed from year to year. No candidates will be admitted to the above courses unless he has passed the examination for Certificates of Proficiency in Oriental Learning or the Matriculation Examination of this University or an examination recognised as equivalent thereto. These are part-time courses primarily intended for those who are desirous of proceeding overseas for higher studies but are also open to other

persons approved by the Syndicate. An examination will be held at the end of each year of the Course ; a pass in the first examination will entitle the candidate for a Certificate, and a pass in the Second examination will qualify the candidate for the Diploma.

Certificate and Diploma in Librarianship

The course for the Certificate in Librarianship extends over a period of about three months beginning in the month of April. The course is open to Intermediates in Arts and Science and to Librarians of five years' standing who are declared eligible for admission to a University course of study. The course consists of (1) Laws of Library Science including Library Organization, (2) Library Routine, classification and cataloguing besides practicals. Certificates are issued to successful candidates.

The course for the Diploma in Librarianship extends over a period of one academic year. Only graduates are eligible for admission to the course. The course will ordinarily consist of lectures and practical work in:—(1) Bibliography, (2) Book Selection, (3) Library Organization, (4) Library Administration, (5) Classification, (6) Cataloguing, (7) Reference Work. At the end of the course an examination is held and diplomas are issued to successful candidates.

Diploma in Geography

This course extends over a period of nine months in the year. Only graduates are admitted to the course. The subjects of study are: Regional Geography of the World (with special study of India and any one of the six continents—the particular continent will be prescribed from time to time) (3 papers) ; the Physical Basis of Geography including elements of Meteorology, Oceanography and Geomorphology (1 paper) ; A short course in (1) Historical Geography or (2) Political Geography or (3) Economic Geography or (4) Bio-Geography or (5) Anthropology Geography (1 paper) and on the use of Instruments, Map-making and Map-reading and practical work (1 paper). Every candidate shall also submit a dissertation on a selected area in India or his Field Work Records.

The examination is divided into two parts. A candidate shall be declared to have passed the examination if he obtains not less

than 35 per cent of the marks in every paper and 40 per cent of the marks in each part.

(The course is not held at present.)

Diploma in Indian Music

This Course extends over a period of two academic years. Provision is made for the teaching of theory of Music and practical course in Vocal, Violin and Veena. With certain exceptions only those persons who are eligible for a University course of study are admitted. At the end of the course there will be an examination which will consist of written and practical examinations. Candidates who obtain not less than 35 per cent of the marks in theory, 40 per cent of the marks in the practical examination, and 40 per cent of the marks in the aggregate will be declared to have qualified for the Diploma.

Provision has been made to enable persons for undergoing the course of lectures in one or more subjects for the Diploma in Economics, in Politics and Public Administration, in Statistics, in Geography and in Indian Music.

Certificate and Diploma in Anthropology

The course extends over a period of two academic years. It is open to persons who have qualified for a degree in this University or in any other recognised University, and such others as may be considered fit to undergo the course and have been recommended by the Head of the Department.

The subjects of study are as follows :—

- (i) Social and Cultural Anthropology.
- (ii) Physical Anthropology and Ethnology with practical work.
- (iii) Pre-historic Archaeology with practical work.

Candidates who pass in (i) or (ii) above at the end of the first year of the course will be entitled for a Certificate, and those who pass in all the above 3 subjects at the end of the second year of the course will be qualified for the Diploma.

Diploma in Journalism

The course is a full-time one extending over one calendar year, and is open to graduates of this University or of any other recognised University.

The course, which is at present conducted in English, consists of the following subjects :—

Journalism, History of the Freedom of the Press and Ethics in Journalism, Composition, Precis Writing and Proof Reading, Legal Studies, Political Science and Modern Constitutions, etc. Social and Economic Structure of To-day, History of the Modern World, Everyday Science-General, Shorthand and Typewriting.

Practical training for a period of not less than six months in a Newspaper Office approved by the Syndicate is necessary.

Diploma in Physical Education

The course is a full-time one extending over one academic year, and is open only to students who have qualified for a degree in this University or other recognised Universities.

The course of study and scheme of examination are as follows :—

Organization and Administration of Physical Education ; Anatomy, Physiology and Hygiene ; Health Education and First Aid and Safety Education ; Rules of Games, Coaching, etc. ; and Principles and Philosophy of Physical Education and History of Physical Education (5 papers); Practical Tests—Teaching Ability and Physical Skills.

Diploma in Analytical Chemistry

The course is a full-time one extending over one academic year and is open only to those who have passed the B.Sc. Degree examination in Chemistry in the main standard. The scheme of examination is as follows : Theory written Paper (1), Practicals (1), Inorganic (2), Organic (3), Physico-Chemical and *viva voce*. The course has not yet been started.

Post-Graduate Diploma in Horticulture

The course is a full-time one extending over a period of one year and is open only to candidates who have qualified for the B.Sc.(Ag.) Degree examination or B.Sc. or B.Sc.(Hons.) Degree examination in Botany.

The course shall cover both theoretical and practical instruction in Horticulture on scientific principles; together with

teaching of the fundamental sciences allied to Horticulture. The scheme of examination is :—(1) Fundamental of Horticultural Science, (2) Individual fruit crops, (3) (in three parts) (a) Fruit products, (b) Pests of Horticultural Crops (c) Diseases of Horticultural Crops, (4) (in three parts) (a) Olericulture, (b) Ornamental Gardening (c) Plantation, beverage, drug and insecticidal crops.

Diploma in Social Service

The course is a part-time one extending for one academic year of which two months not consecutive shall be spent in field work. Admission to the course is open to graduates or to those who are studying in Degree classes under prescribed conditions.

The scheme of examination is :—1. Sociology and Adult Education, 2. Economics (Social and Rural), 3. Industrial and Social Problems and Labour Problems, 4. Psychology and Medical Information.

MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA

Introduction

The University for Baroda came to be established only in April 1949, but the idea was in the air ever since 1908 when it engaged the attention of the Government of Baroda and its educational advisers. As early as 1919 when the idea of Regional Universities and decentralisation of higher education to suit the Educational and Cultural needs of particular areas was new and had not taken root in this country, Shri Sayajirao Gaekwad of Baroda of revered memory with the forethought and foresight of a statesman appointed a committee to consider the question of establishing a Civic University for Baroda. With the foundation of the Golden Jubilee Science Institute, a further stride was taken and the foundation-stone of the establishment of the University was laid with the appointment of the first University Committee in 1926. But the seed laid in the erudite report of the Committee could not grow and bear fruit owing to circumstances then existing. It was in 1947 that His Highness the Maharaja Sir Pratapsinh Gaekwad, appointed a Committee under the Chairmanship of Sri K. M. Munshi to consider the question of an early establishment of a University at Baroda. The result was the Maharaja Sayajirao University of Baroda Act of 1949 and the inauguration of this University with His Highness the Maharaja Sir Pratapsinh Gaekwad of Baroda as the Chancellor.

Incorporation

The University named after the late illustrious ruler of Baroda, Sir Sayajirao Gaekwad, was incorporated on 27th April, 1949, by an Act of the Baroda Legislature passed on 26th April, 1949 before the integration of the Baroda State into the Province of Bombay on 1-5-49. The Bombay Government by its order of the Political and Services Department in the matter of the Baroda State (application of Laws) Order No. 4530/461 dated 27-7-49 has directed that the Maharaja Sayajirao University of Baroda Act 1949 (No. XXVII of 1949), shall continue to be in force subject to certain amendments the main one being an increase in the number of Fellows of the Senate to be nominated by the Chancellor from 15 to 30.

Character of the University

The University is established and incorporated as a teaching and residential University at Baroda having also powers of affiliation for that purpose.

Jurisdiction

The University area comprises the limits of the City of Baroda and territories within a radius of 10 miles from the office of the University. Section 5 of the Act lays down that no educational institution situate within the University area can save with the consent of the University and the sanction of Government be associated in any way with or seek admission to any privileges of any other University established by law. All privileges enjoyed from such other University before the date on which the Section (5) comes into force by any educational institution situate within the University area shall be deemed to be withdrawn with effect from such date. With effect from such date all Educational institutions admitted to the privileges of the University of Bombay and situate within the University area shall be deemed to be admitted to the privileges of the University and the University shall as far as may be possible and consistent with the Act admit such institutions to all such privileges as they had from the University of Bombay immediately before such date. This section of the Act will be brought into operation by the Government of Bombay as soon as all the various Authorities of the University have been constituted.

Faculties and Institutions of the University.

1. Faculty of Arts, Baroda College Building, Station Road, Baroda.
2. Faculty of Science, Golden Jubilee Science Institute, Station Road, Baroda.
3. Faculty of Medicine, Medical College, Baroda.
4. Faculty of Technology (including Engineering), Engineering College Building, Baroda.
5. Faculty of Commerce, Baroda College Building, Station Road, Baroda.
6. Faculty of Fine Arts, Pushpabag, University Road, Baroda.
7. Faculty of Home Science, University Road, Baroda.
8. Faculty of Education & Psychology, Station Road, Baroda.
9. Intermediate College, Baroda College Compound, Baroda.
10. College of Indian Music, Dance and Dramatics, Opposite Sursagar, Shivaji Road, Baroda.

11. Faculty of Social Work, Camp Road, Baroda.
12. The Oriental Institute, Kothi Buildings, Baroda.
13. The Baroda Sanskrit Mahavidyalaya, Bank Road, Baroda.

Officers and the staff of the University

- (1) *Chancellor*—His Highness the Maharaja Gaekwad of Baroda.
- (2) *Vice-Chancellor*—Shrimati Hansa Mehta, B.A. (Hons.).
- (3) *Pro-Vice-Chancellor*—Dr. C.S. Patel, M.Sc. (Bom.), Ph.D. (Leeds).
- (4) *Registrar*—Shri B.K. Zutshi, M.A., LL.B.
- (5) *Assistant Registrar*—Shri K.J. Majmudar, M.A., B.T.
- (6) *Accountant*—Shri A.C. Mody, B.A. (Hons.)
- (7) *Librarian*—Vacant.

Authorities of the University.

1. *The Senate* :—The Senate is the supreme governing body and authority of the University. The life of the first Senate nominated by Government came to an end on 31st October, 1951. The Senate, as constituted under the Act, came into being from 1st November 1951.

2. *The Syndicate* is the executive authority of the University. The new Syndicate as constituted under the Act has come into being from 1st November 1951.

3. There are at present nine Faculties in the University :—

- (1) Faculty of Arts
- (2) Faculty of Science
- (3) Faculty of Education & Psychology
- (4) Faculty of Commerce
- (5) Faculty of Medicine
- (6) Faculty of Technology (including Engineering)
- (7) Faculty of Fine Arts
- (8) Faculty of Home Science
- (9) Faculty of Social Work,

Deans Faculties and Heads of Recognised Institutions,

(i) Deans of Faculties

Faculty of Arts

Shri G. B. Pandya, M. A. (Alld.), B.A. (Hons.), (London)

Faculty of Science

Prof. C. S. Patel, B.A., M. Sc. (Bom.), Ph. D. (Leeds)

Faculty of Education & Psychology

Prof. T. K. N. Menon, B. A. (Madras), Dip. in Edu. (Leeds & Berlin), M. A. Edu. (Leeds).

Faculty of Commerce

Prof. V. Y. Kolhatkar, M. Com. (Bom.), M. Sc. (London).

Faculty of Medicine

Dr. A.N. de Quadros, D.P.H. (London), F.R.C.S. (Eng.)

Faculty of Technology (including Engineering)

Prof. D. Subbarao, B. E. (Civil) (Mysore), A.M.I.E. (India)

Faculty of Fine Arts

Prof. Markand Bhatt, G.D. (Art) (Bom.), M.A. (Barnes Foundation)

Faculty of Home Science

Dr. (Miss) Leela Desai, B.A. (Hons.), B.T. (Bom.), M.A., Ph. D. (Michigan)

Faculty of Social Work

Dr. (Miss) Parin Vakharia, B. A. (Bom.), Dip. in S.S.A., M.S. (Columbia), Ph. D. (New York),

(ii) Heads of Recognised Institutions

Oriental Institute

Shri G. H. Bhatt, M.A.

College of Indian Music, Dance and Dramatics

Shri A. S. Vasu.

Museum and Picture Gallery

Dr. H. Goetz, Ph. D. (Munich)

Baroda Sanskrit Mahavidyalaya

Shri H. C. Metha, M.A., B.T.

4. The Council of Post-Graduate Studies and Research consists of 11 ex-officio members and 5 members elected by the Senate.

5. *Boards of Studies* :—There are 27 Boards of Studies in the different Faculties.

I—Faculty of Arts

1. Sanskrit, Pali and Ardhamagadhi Language and Literature.
2. Persian, Urdu and other Asian Languages and Literature.
3. Hindi Language and Literature.
4. Gujarati Language and Literature.
5. Marathi Language and Literature.
6. English Language and Literature.
7. Modern and Ancient European Languages and Literature.
8. Sociology.
9. History, Archaeology and Ancient Indian Culture.
10. Philosophy.

II—Faculty of Science

1. Physics and Meteorology.
2. Chemistry.
3. Botany.
4. Zoology.

III—Faculty of Education and Psychology

1. Education and Psychology.

IV—Faculty of Commerce

1. Commerce, including Business Organisation, Accountancy and Audit, Banking, Transport, Cotton Industry, etc.

V—Faculty of Medicine

1. Anatomy and Physiology.
2. Pharmacology and Pathology.
3. Medicine, Surgery, Midwifery, etc.

VI—Faculty of Technology (including Engineering)

1. Technology (Textile).
2. Engineering.

VII—Faculty of Fine Arts

1. Painting, Sculpture and Applied Arts.
2. Architecture.
3. Music, Dancing and Dramatics.
4. Museology.

VIII—Faculty of Home Science

1. Home Science

IX—Faculty of Social Work

1. Social work.

6. *Number of students*:—The number of students including post-graduate students studying in various Institutions on 1-7-1952 was as under:—

S. Name of the Institution
No.

No. of
students. Total
Men Women

1. Faculty of Arts	Degree	185	69	254
	B.A. (Hons.)	3	5	8
	Post-graduate	71	10	81
				343
2. Faculty of Science	Degree	1021	75	1096
	Post-graduate	38	2	40
				1,136
3. Faculty of Commerce	Degree	147	1	148
	Post-graduate	37	...	37
				185

S. No.	Name of the Institution		No. of Students		Total
			Men	Women	
4.	Faculty of Education and Psychology.	Post-graduate	96	11	107
		Diploma (T.D.)	33	1	34
					141
5.	Faculty of Medicine	Degree	136	17	153
6.	Faculty of Technology (including Eng.)	Degree	189	...	189
		Diploma	549	3	552
		Certificate	170	...	170
					911
7.	Faculty of Fine Arts	Degree	18	8	26
		Diploma	16	1	17
		Certificate	3	...	3
					46
8.	College of Indian Music, Dance and Dramatics	Degree	10	14	24
		Diploma	280	104	384
					408
9.	Faculty of Home Science	Degree	...	82	82
10.	Faculty of Social Work	Post-graduate	34	4	38
11.	Intermediate College	Degree	380	90	470
12.	Sanskrit Mahavidyalaya	Certificate	92	...	92
Grand Total			3,508	497	4,005

7. *Freestudentships, Scholarships & Medals* :—Each institution awards scholarships as per the budget allotment for each institu-

tion by the University. They are classified as Merit, Post-graduate, Rural Economics, Research, Antyaj, Backward class and Artisan class, and Memorial Funds scholarships. Free studentships are also awarded to poor and deserving students in each constituent institution to the extent of 15 per cent of the total strength and subject to the conditions laid down for their awards by the Syndicate and Government. There are also prizes and medals that are given from funds especially received for the awards, by the institutions.

8. *Libraries, Laboratories, Gardens and Farms.*—Each of the constituent Institutions maintains a Library of its own: The Faculty of Science and the Faculty of Technology (including Engineering) maintain the necessary laboratories and workshops and the Faculty of Science has a Botanical Garden attached to the Department of the Faculty. The cost of running the Constituent institutions is borne by the University. The Medical College is run by the Bombay Government.

9. *Associations in the University:*—The Maharaja Sayajirao University Union was established in January 1950 with a view to training up students to manage their own affairs. Its main object is to supplement the academic teaching by means of extra curricular activities. A grant of Rs. 5,000 was given by the University in the beginning for fitting up the Union building with furniture and other materials.

The Reading Room:—The Reading room is furnished with Indian and Foreign Magazines in addition to some dailies and weeklies. Books for general reading are also kept in the Reading Room.

Games :—Several indoor games like Carrom, Ping Pong, etc. are provided. Tournaments are held and prizes are awarded to the winners.

Co-operative Stores:—The University Union runs a Co-operative Store.

Social Service League:—This body helps the poor students of the University with money and books and undertakes other social service activities.

Unesco Club:—There is a Unesco Club under the University Union.

10. *Residence and cost of living:*—There are at present five hostels run by the University in which 420 students are accommo-

dated. During the year, the University has constructed two blocks of hostels for men at a cost of Rs. 11,05,467. They are provided with all the modern facilities and provide accommodation to 260 students. These two blocks are named (i) Shri Manubhai Mehta Hall and (ii) Maharshi Arvinda Hall. The third Hall of Residence named Shri Dadabhai Naoroji Hall accommodates 64 students. Besides these Hostel buildings, there are two other buildings, which accommodate about 100 students. Each hostel is under the charge of a teacher Warden. In order to supervise work in all the hostels, the University has appointed a Hostel Inspection Committee which looks after the maintenance of the Hostels. A separate Hostel for women named Shrimati Sarojinidevi Hall with all the modern facilities has been constructed by the University at an estimated total cost of Rs. 5,77,000. It provides accommodation at present for 82 lady students. A whole-time Superintendent is in charge of the Women's Hostel, under the direct control of the Dean of the Faculty of Home Science. Residential accommodation for the Superintendent and for six staff members has also been provided, in this Hostel. The hostel is provided with a library, common room and gymnasium shed.

11. Number of students staying in the hostels on 1-7-52 was as under :-

S. No.	Name of the Institution.	Hall of Residence No. 1	Hall of Residence No. 2	Hall of Residence No. 3	Bunga-low No. 11	Salat-wada Hostel	Total
1	2	3	4	5	6	7	8
1.	Faculty of Arts ...	11	5	5	...	...	21
2.	Faculty of Science ...	48	57	7	...	...	112
3.	Faculty of Education & Psychology	21	...	32	...	...	53
4.	Faculty of Commerce	6	6	2	...	...	14
5.	Faculty of Medicine	12	6	1	...	...	19
6.	Faculty of Fine Arts	5	2	...	...	...	7
7.	Faculty of Social Work ...	8	7	9	...	...	24
8.	Intermediate College	19	18	...	...	...	37
9.	Faculty of Technology (including Engineering) ...	...	29	...	40	56	125
Total		130	130	56	40	56	412

12. *Budget*.—The total Revenue Budget expenditure for the year ending June 1953 is expected to be Rs. 29,52,231 on the University Office, Faculties and Institutions as against the total budgetted income of Rs. 25,70,480 resulting in a deficit of Rs. 3,81,751.

13. *Provident Fund*.—The Syndicate of the University has laid down rules for the Provident Fund. Each employee of the University, eligible for admission to the Fund, is required to subscribe one anna per rupee of his monthly salary and the University has undertaken to contribute an equal sum. Such of the employees as were Baroda Government servants before integration and were entitled to pension, are also allowed to subscribe to the Fund on a non-contributory basis.

14. *Assets*.—The Government of Baroda gave a sum of Rs. 6,00,000 to the Trustees of the Women's Educational Trust Fund for building and equipment of the Home Science College and its maintenance. They further promise to give a sum not exceeding Rs. 2,00,000, equal to the amount collected by the Trustees as donations from the public. The Trustees accordingly collected donations from the public amounting to Rs. 1,66,792 and an equal sum was received from the Government. The Trustees have transferred the funds to the University for the construction, equipment and maintenance of the Home Science College, keeping a small balance of Rs. 1,442-13-6 with them.

The Oriental Institute and Music College were also transferred to the University. The Baroda Sanskrit Mahavidyalaya was transferred at a later stage to the University. The Baroda Government also transferred building called the Treasury Buildings together with some staff quarters to the University.

15. *Endowments* :—

- | | |
|--|------------------|
| (1) Baroda College Students Union Independence Day Essay Prize Fund. | Rs. 5,000. |
| (2) Shri N.P. Pandya Memorial Prize Fund. | Rs. 1,500. |
| (3) Baroda College Students Union Boating House & Sports Pavilion. | Rs. 42,289-14-6. |
| (4) United Nations Appeal for Children Fund. | Rs. 1,04,960-0-8 |
| (5) G.K.R. Purohit Scholarship Fund. | Rs. 5,000. |
| (6) Seth U.P. Ayurvedic Research Unit Fund | Rs. 1,64,675-9-0 |

16. *Students Information Bureau* :—The Assistant Registrar is the Secretary of the Bureau. Enquiries from students and teachers pertaining to admissions in foreign and Indian Universities for studies in Science and Technology, eligibility for admissions, exemptions and scholarships and courses open to undergraduates are attended to and the required information is given.

17. *Courses of Study*.—The following courses leading to the degrees mentioned against each are taught in the different Faculties under this University :—

S. No.	Name of the Faculty	Courses taught.
1.	Faculty of Arts	B.A., M.A. & Ph.D.
2.	Faculty of Science	B.Sc., M.Sc. & Ph. D.
3.	Faculty of Education and Psychology	B.T., M.Ed., Ph.D., & Diploma in Teaching (T.D.)
4.	Faculty of Commerce	B. Com., M. Com. & Ph. D.
5.	Faculty of Technology (including Engineering)	(i) B. E. (Civil, Mech., & Electrical) (ii) Diplomas in Civil Mech. & Electrical Engineering and in Textile Chemistry Weaving Technology & Architecture. (iii) Certificate courses for Turners, Fitters, Wiremen, Dyeing Carpentry, Weaving & Architect.
6.	Faculty of Fine Arts	B. A. (Fine) & Diploma in Painting.
7.	College of Indian Music, Dance and Dramatics	B. Mus. & Diploma in Music (Vocal & Instrument)
8.	Faculty of Home Science	B. Sc. (Home.)
9.	Faculty of Social Work	Master of Social Work (M.S.W.)
10.	Intermediate College	F.Y. Arts, Int. Arts., F.Y. Com., Int. Commerce.

New courses :—Provision has been made to introduce the following courses and subjects in the various Faculties :—

1. An Honours course in Psychology of two years' duration leading to the Degree of B.A. (Hons.) Psychology in the Faculty of Arts.
2. Geology upto the Intermediate standard in the Faculty of Science.
3. Statistics leading to the Degrees of B. Sc. and M. Sc. in the Faculty of Science.
4. A two years post-graduate Diploma course in Museology in the Faculty of Fine Arts.
5. The subjects of Demography in M. A. (Economics) and Sociology in the B.A. & M.A. classes in the Faculty of Arts from June 1951.
6. The Ujamshi Pitamberdas Ayurvedic Research Unit is being established under the Faculty of Medicine.

18. *Scales of fees* :—The scales of tuition fees prescribed in the various institutions per term were as under :—

S. No.	Name of the Faculty	Tuition fees. per term	Lab. and/ or practical fees.	Remarks.
		Rs.	Rs.	
1.	Faculty of Arts.	75*	...	For graduate classes.
		50	...	For M. A. & Ph.D. classes.
2.	Faculty of Science	75*	20	For F.Y.Sc.
		75	25	For Inter. Sc.
		75	40	For B.Sc. classes
3.	Faculty of Commerce	100	...	For B. Com. classes.
		50	...	For M. Com. & Ph. D. classes.

* Rs. 90/- per term from 1-7-1953.

S. No.	Name of the Faculty	Tuition fees per term	Lab. and/or practical fees	Remarks
4.	Faculty of Edu. and Psychology	120	...	For B. T. classes.
		120	...	For T. D. classes.
		75		B.A. (Hons.) Psychology,
		75	...	For M. Ed. classes.
5.	Intermediate College for Arts and Commerce	75	...	For F. Y. Arts & Inter Arts.
		100	...	For F. Y. Com. Int. Commerce.
6.	Faculty of Technology. (including Engineering)	150	...	For degree classes (B. E. Civil, Mech. & Electrical).
		75	...	For Diploma classes.
		30	...	For Certificate classes.
7.	Faculty of Fine Arts	50	20	Both for Degree & Diploma classes.
		25	10	For Certificate classes.
		3 p.m. First year		For Diploma in Music.
		4 p.m. Second year.		
		5 p.m. Third year		
8.	Faculty of Home Science.	50	20	
		50		
9.	Faculty of Social Work.			

19. Fees for admission to the examination :—

	Rs.
1. I.A.	30
2. B.A.	50
3. M.A. (Thesis or papers)	75
4. Int. Sc.	40
5. B. Sc. (Subsidiary)	35
6. B. Sc. (Principal)	50
7. M. Sc. (Paper or thesis)	100
8. M. Sc. (Translation Test)	25
9. T. D. Part I	15
10. T. D. Part II	10
11. B.T. Part I	15
12. B.T. Part II	15
13. M. Ed. (Thesis or papers)	75
14. I. Com.	30
15. B. Com.	50
16. M. Com.	100
17. First M.B.B.S.	40
18. Second M.B.B.S.	20
19. Third M.B.B.S.	75
20. M.D.	200
21. M.S.	200
22. F.E.	40
23. S.E. (Civil Mech. & Elec.)	40
24. B.E. (Civil, Mech. & Elec.)	60
25. M.E. (Civil, Mech. & Elec.)	100
26. Ph. D.	100
27. D. Litt	200
28. D. Sc.	200

{ Rs. 75 if
taken
together

20. No. of successful students in the University Examinations
1951-52 :—

S. No.	Examinations.	No. of students appear- ed.	No. of success- ful stu- dents.
1.	F.Y. Arts	197	154
2.	Inter. Arts	248	145
3.	B.A. (Special)	82	73
4.	B.A. (General)	18	14
5.	M.A.	21	16
6.	F.Y. Sc.	428	288
7.	Inter Sc.	387	276
8.	B. Sc. (Principal)	125	96
9.	B.Sc. (Subsidiary) April	134	119
	October	24	20
10.	M. Sc. (by papers)	14	10
11.	M. Sc. (by thesis)	1	1
12.	F.Y. Com.	87	62
13.	Int. Com.	157	97
14.	B. Com. March	66	50
	October	45	21
15.	M. Com.	1	1
16.	B.T.	110	108
17.	T. D.	28	28
18.	Ist M.B.B.S. April	35	29
	October	9	9
19.	F. E.	106	68
20.	S. E.	53	32
21.	B. E. (Part I)	7	7
22.	Diploma in Mech. Engineering	21	20
23.	Diploma in Civil Engineering	25	21
24.	Diploma in Elec. Engineering	26	26
25.	Diploma in Weaving Technology	10	10
26.	Diploma in Textile Chemistry	14	14
27.	Diploma in Architecture	13	8
28.	Diploma in Music	20	16
29.	Jyotish Visharad	2	2
30.	Jyotish Alankar	3	3
31.	Vyakaran Alankar	1	1
32.	Master of Social Work	12	11
33.	Diploma in Painting	1	1
34.	M. Ed.	26	21

STATEMENT I

Receipts and Expenditure of the University for the year ending 30th June 1952.

RECEIPTS		Amount Rs. a. p.	EXPENDITURE		Amount Rs. a. p.
I. Tuition fees and other Income from Faculties & Ins-titutions	5,83,939	8 10	I. University Office Establish-ment	...	1,41,947 0 4
II. Examination fees	...	97,477 2 0	II. Examination charges	...	93,160 11 10
III. Other fees	...	47,502 10 0	III. Purchase of Deadstock & Repairs	1,978	15 0
IV. Income from Publications	6,986	11 10	IV. University Library	...	39,498 15 0
V. Bombay Government Grant	12,55,967	12 0	V. Publications	...	7,468 11 3
VI. Grant from Sayajirao Diamond Jubilee & Memorial Fund	2,60,000	0 0	VI. Information & Publicity	14,069	1 0
VII. Interest on cash balances	5,862	4 9	VII. Travelling Allowance	24,925	15 9
VIII. Income from Endow-ments	51,717	7 6	VIII. Printing & Stationery	24,293	12 3
			IX. Physical Education Dept.	32,186	4 6

BARODA

728q

BARODA									
IX.	Income from Hostels for students	45,131	0	0	X.	Maintenance of Buildings & Roads	36,396	10	3
X.	Income from use and occupation of University quarters and bungalows	28,654	12	1	XI.	Maintenance of Gardens	14,475	3	0
					XII.	Municipal Rates & Taxes & Land Charges	868	15	0
XI.	Income from lease of Land and Trees	4,024	14	3					
XII.	Miscellaneous Income	29,013	15	7	XIII.	University contribution to Provident Fund	3,732	2	0
	Total Receipts	24,16,278	2	10	XIV.	Research staff contingencies, Equipment	26,731	6	9
					XV.	Study leave	11,809	9	0
					XVI.	Miscellaneous	48,772	4	5
					Total University Office		5,22,315	9	4
Add	Excess of Receipts over Disbursements for the year 1951-52 i.e. Deficit	28,242	6	10	XVII.	Faculties & Institutions	18,63,488	11	1
					XVIII.	Hostels	58,716	5	3
	Grand Total	24,44,520	9	8	Grand Total		24,44,520	9	8

STATEMENT NO. II

Statement Showing the Receipts and Expenditure of the Faculties & Institutions for the Year Ending 30th June 1952.

FACULTIES.	RECEIPTS.			EXPENDITURE		
	Rs.	a.	p.	Rs.	a.	p.
Faculty of Arts	93,421	13	0	3,19,883	2	0
Faculty of Science	2,21,249	10	1	3,37,260	2	1
Faculty of Education & Psychology	46,326	2	0	1,57,057	4	8
Faculty of Commerce	67,395	0	0	78,466	1	9
Faculty of Technology, (including Engineering)	1,57,003	2	9	5,12,499	6	11
Faculty of Fine Arts	5,856	3	0	80,822	5	10
Faculty of Home Science	10,512	0	0	84,051	13	3
Faculty of Social Work	2,879	2	0	85,012	1	0
INSTITUTIONS						
*Oriental Institute				57,976	1	10
College of Indian Music	9,053	14	0	76,065	7	9
†Intermediate College of Arts & Commerce	271	5	0	33,166	4	0
Baroda Sanskrit Mahavidyalaya	6	5	0	41,228	8	0
Total	6,13,974	8	10	18,63,488	11	1
Less 15% of Tuition Fees kept as Deposit for awarding freeships	37,950	0	0			
	5,76,024	8	10			
Add Balance out of deposit for awarding 15% freeships out of Tuition Fees in 1950-51	7,915	0	0			
Grand Total	5,83,939	8	10	18,63,488	11	1

* The Receipts of the Oriental Institute are shown with Receipts side under IV "Income from Publications" in the University office, in Statement No. 1.

† The Tuition fees of the Intermediate College of Arts and Commerce are shown in the Faculties of Arts and Commerce respectively.

MUSLIM UNIVERSITY ALIGARH

Introductory

The Aligarh Muslim University owes its origin to the Aligarh movement which was started by the late Sir Syed Ahmed Khan in the latter part of the last Century. As a result of his efforts the late Muhammadan Anglo-Oriental College was opened at Aligarh in 1875, and it soon grew in reputation and numbers till in 1895 the number of students in the College and school rose to 565 and when, in March 1898, its great founder died, it had attained a prominent position in the whole country. Soon after, in 1899, attempts were made to collect funds for raising the College to the status of a University. The necessary funds were collected and after some delay the Aligarh Muslim University Act came into force in December, 1922.

Character of the University

It is a residential and teaching University. The teaching in each subject is regulated by the department concerned. Provision is also made for tutorial instruction after the manner of the tutorial system prevalent in the Oxford University.

OFFICERS AND STAFF OF THE ALIGARH MUSLIM UNIVERSITY

Visitor	Dr. Rajendra Prasad, President of the Indian Union, M.A., M.L., LL.D.
Chief Rector	Dr. K. M. Munshi, B.A., LL.B., D. Litt., Governor, U.P.
Chancellor	His Holyness Syedna Mulla Dr. Tahir Saifuddin, D. Th.
Pro-Chancellor	Nawab Dr. Sir Muhammad Ahmad Said Khan of Chhatari, LL.D.
Vice-Chancellor	Dr. Zakir Hussain, M.A., Ph. D. (Berlin), D. Litt (Delhi).
Honorary Treasurer	Mr. S. Shahzad Ahmad Khan, (Acting), B.A. (Cantab).
Registrar	Mr. S. Mahmud Hossain, M.A.

Dean, Faculty of Theology	The Vice-Chancellor (Acting).
Dean, Faculty of Arts	Prof. Mohammad Habib, B.A., (Hons.) (Oxon), Bar-at-law.
Dean, Faculty of Science	Prof. Dr. M. B. Mirza, D. Phil, B.Sc.(Hons.) (Bom.), F.R.M.S. (London).
Dean, Faculty of Engineer- ing	Dr. N. C. Saha, B. Sc. (Hons.) (Engg.) (Glas.), M. Sc., Ph. D. (Munich), A.M.I.E.E. (London).
Dean, Faculty of Medicine	Professor Dr. A. Leber, M.D.
Principal, College of En- gineering & Technology, and of the University Poly- technic	Prof. Dr. K. C. Chakko, D. Sc. (Engg.) (London), M.Sc. (Engg.), B.Sc. (Hon.) (Engg.) (London), B.A. (Maths), M.I.E., I.E.S. (Retired).
Director, Institute of Ophthal- mology	Prof. Dr. A. Leber, M. D.
Principal, Tibbiya College	Shifaul-Mulk Hakim Abdul Latif, (Qualified in Tib from Takmilul Tib College, Lucknow, Fazil in Philosophy.)
Principal, Women's College	Mrs. M. J. Haider, M.A., Ed., Certif. (Bristol).
Principal, Teachers' Train- ing College (Head of the Department of Education)	Prof. H. Rahman, M.A., L.T., M.A. Ed. (Birmingham).
Provost, S.S. Hall	Prof. Sh. A. Rashid, M.A., LL.B.
Provost, V.M. Hall	Dr. S. Nurul Hasan, M.A. (Alld.) D. Phil (Oxon), F. R. Hist., S.
Provost, Aftab Hall	Dr. S. Muzaffar Ali, M.A., M.Sc., Ph. D. (London).
Provost, S.S. Engg. Hall	Dr. M. A. Basir Khan, M. Sc., B. Sc.(Hons.) Ph. D. (Aligarh), Ph.D. (McGill) D. Sc.
Proctor	Mr. S. M. Shafi, B. A., (Alig.), B. Sc., (Economics) (London), Bar-at-Law.
Librarian	Mr. S. Bashiruddin, M. A. (Dip. in Lib. Punjab) Certif. in Librarianship (London).
Medical Officer	Capt. Hafizur Rahman, M.B.B.S.,

TEACHING STAFF OF THE UNIVERSITY

<i>Faculty of Theology</i>	Dean, The Vice-Chancellor (Acting.)
Sunni Theology	Reader, Vacant and two Lecturers
Shia Theology	Reader, Vacant and two Lecturers
<i>Faculty of Arts</i>	Dean. Prof. Mohd. Habib B.A. (Hons.) (Oxon), Bar-at-Law.
English	Professor: Vacant Reader & Dr. A. Bose, M.A. (Dacca), Head: D. Phil. (Oxon). Reader: Mr. Mukhtar Hamid Ali, M.A. Reader: Mr. B. A. Khan M.A. 6 Lecturers.
Economics	Professor: Vacant Reader & Head: Mr. Mohd. Shabbir Khan 6 Lecturers.
Philosophy & Psychology	Reader & Mr. M. Umaruddin, M.A., Head: (Phil.), M.A. (Arabic), M.A. (Per.), B. T. (Alig.). 6 Lecturers.
History	Professor Mr. Shiekh Abdul Rashid, & Head: M.A., LL.B. Reader: Dr. S. Nurul Hasan, M.A. (Alld.) D. Phil. (Oxon) F. R. Hist. S. 6 Lecturers.
Political Science	Professor Mr. Mohd. Habib, B.A. & Head: (Oxon), Bar-at-Law. Reader: Mr. Ch. Mohd. Sultan, M.A. (Luck.) 7 Lecturers.
Arabic and Islamic Studies	Professor: Vacant Reader & Dr. Abdul Aleem, B.A. (Hons.) Head: D. Phil. (Berlin) 3 Leturers.
Persian	Professor Dr. S. Hadi Hasan, B.A. & Head: (Cantab), Ph.D. (London). Reader: Moulvi Zia-i-Ahamad, M.A., (Alld.) Fazil Darsi Nizami. 3 Lecturers.

Urdu	Reader & Head :	Mr. R.A. Siddiqi, M.A.
		5 Lecturers.
Hindi & Sanskrit	Reader & Head :	Dr. Pt. H. L. Sharma, M.A., Ph.D.
		3 Lecturers.
Education	Professor & Head :	Mr. Habibul Rahman, M.A., L.T., M.A. Ed. (Birmingham).
	Reader :	Dr. A. Mujib, M. Sc., M.Ed. Ph. D., (Columbia).
		10 Lecturers.
Law	Reader & Head :	Mr. Hafizul Rahman, B.A., LL.B.
		4 Lecturers.
Commerce	Reader & Head :	Mr. S. M. Shafi, B.A., (Alig.) B.Sc. (Economics) (London), Bar-at-Law.
		4 Lecturers.
<i>Faculty of Science</i>	Dean, Prof. M.B. Mirza, D. Phil. B.Sc., (Hons.) (Bom.), F.R.M.S. (London).	
Botany	Reader :	Dr. Reayat Khan, M. Sc., Ph.D.
		7 Lecturers.
Chemistry	Professor :	Vacant
	Reader & Head :	Dr. M. O. Farooq, M. Sc., Ph. D. (Alig.), Ph. D. (London).
	Reader :	Dr. M.A. Aziz, B. Sc. (Alig.) D. Phil. (Berlin).
	Reader :	Dr. Akhlaq R. Kidwai, B. Sc. (Jamia), M. Sc. (111) Ph. D. (Corwell).
		10 Lecturers.
Geography	Reader & Head :	Dr. S M. Tahir Rizvi, B.A. (Hons.), Ph. D. (London), M.A., LL.B. (Alig.) Bar-at-Law.
	Reader :	Dr. S.M. Ali, M.A., M. Sc., Ph. D. (London).
		8 Lecturers.

Geology	Reader & Head :	Dr. P. N. Ganju, M. Sc., Ph. D. 3 Lecturers.
Mathematics & Statistics	Professor & Head :	Dr. S. M. Shah, M.A., Ph.D., London
	Reader :	Vacant 8 Lecturers.
Physics	Professor & Head :	Dr. P. S. Gill, M. Sc. (South California), Ph. D. (Chicago), F.M.I.
	Reader :	Dr. S. Nawazish Ali, M. Sc., Ph. D. (Alig.)
	Reader :	Mr. S. Gupta, M. Sc. (Cal.), P.R.S. 10 Lecturers.
Military Science	Reader & Head :	Capt. S. M. Ali, M.A., M.Sc., Ph. D. (London). 3 Lecturers.
Zoology	Prof. & Head :	Dr. M. B. Mirza, D. Phil., B. Sc. (Hons.) (Bom.) F.R. M.S. (London).
	Reader :	Dr. M.A. Basir Khan, M.Sc., B. Sc. (Hons.), Ph. D. (Alig.) Ph. D. (McGill), D. Sc. 6 Lecturers.
<i>Faculty of Engineering & Technology :</i>	Principal	Dr. K. C. Chakko, D. Sc. (Engg.) (London), M. Sc. (Engg.) B. Sc. (Hons.) (Engg.), (London), B.A. (Maths.), M.I.E., I.E.S. (Retired).
	Dean :	Dr. N. C. Saha, B. Sc. (Hons.) (Engg.) (Glas.), M. Sc., Ph. D. (Munich), A.M.I. E.E. (London).
Civil Engineering	Prof. & Head :	Dr. K. C. Chakko, D. Sc. (Engg.) (London) etc.
	Reader :	Mr. A. M. Chowdiah, M. Sc. (Engg.), (Michigan State College) 8 Lecturers.

Electrical Engineering	Prof. &	Dr. N. C. Saha, B. Sc. (Hons.)
	Head :	(Egg.) etc.
	Reader :	Mr. U. Durrani, B. Sc. (Alig).
		Assoc. E.E. (Sheffield)
		Grad. I. E. E. (London),
		A.M.I.R. E. (U.S.A.)
		10 Lecturers.
Mechanical Engineering.	Prof. &	Mr. N. C. Dey, M. Sc. (Cal.)
	Head :	B. Sc. (Hons.) Engg.
		(London), A.M.I. Mech : E.,
		(London), A.M.I.E. (India).
	Reader :	Mr. D.V. Narasimham, B. Sc.
		(Engg.), (Banaras), B. Sc.
		(Durham), A. I. Mar. E.
		Grad. I, Mech. E.
		6 Lecturers.
Faculty of Medicine	Prof:	Dr. A. Leber, M.D.
Ophthalmology	Prof. &	Dr. A. Leber, M. D.
	Head :	
		4 Lecturers.
Unani Tib & Surgery	Principal	Shifaul Mulk Hakim Abdul
	Reader &	Latif, Qualified in Tib
	Head :	from Takmilul Tib Col-
		lege, Lucknow, Fazil in
		Philosophy.
		12 Lecturers.

Constitution of the University

The principal authorities of the University are the Court, the Executive Council, the Academic Council, and the Standing Finance Committee.

The Vice-Chancellor is the principal executive and academic officer of the University.

All appointments on the teaching staff are made by the Executive Council from a list of persons recommended by a Selection Committee as detailed below :—

Professor—

- (i) The Dean of the Faculty ;
- (ii) The Head of the Department concerned, if he is a Professor ;

- (iii) Three persons, not connected with the University, nominated by the Academic Council for their special knowledge of or interest in the subject with which the Professor will be concerned.

Reader or Lecturer—

- (i) The Dean of the Faculty ;
 (ii) The Head of the Department concerned ;
 (iii) Two persons, not connected with the University, nominated by the Academic Council for their special knowledge of, or interest in the subject with which the Reader or lecturer will be concerned.

Number of students in the University under different Faculties in 1952

	Men	Women
Intermediate (Arts, Sc. & Com.)	705	62
B. A. & B. Sc. (Pass) & B. Com.	596	65
Post-Graduate M. A., M. Sc., B. Th., and Research students	563	39
Diploma in Foreign Affairs	18	...
LL.B., B. Ed., & M. Ed.	337	21
B. Sc. Engg.	300	...
Dip. Engg.	136	...
Tibbiya (B.U.M.S.)	78	...
	<hr/> 2,733	<hr/> 187

Number of Successful candidates in different Examinations held in the year 1952

	Men	Women
High School	268	108
Intermediate Arts	37	26
Intermediate Science	194	13
Intermediate Commerce	28	...
B. A. Pass	58	20
B. Sc. Pass	110	7
B. Com. (Prev. & Final)	66	...
B. Sc. (Hons)	1	...
M. A. (Prev. & Final)	270	24
M. Sc. (Prev. & Final)	144	3
M. Ed.	10	6

	Men	Women
B. Ed.	45	10
B. U. M. S. (Tib.)	7	...
LL.B. (Prev. & Final)	212	1
B. Sc. Engg. (Civil, Mech. & Elec.)	97	...
B. Th.	1	...
Ph. D.	1	1
D. Sc.	1	...
Dip. Engg.	23	...
Dip. in Foreign Affairs	7	...

LIST OF SCHOLARSHIPS AWARDED EVERY YEAR

Scholarships for Special Subjects :—

1. ARABIC AND ISLAMIC STUDIES SCHOLARSHIPS.

A. Arabic.

- (a) One research scholarship of Rs. 75 p.m. to an M.A. in Arabic carrying on research work in the subject as a Ph. D. Student of the University.

N.B.—This scholarship shall be awarded for a period of two years and shall be liable to be stopped on the report of the Head of the Department if the progress of the student is not satisfactory.

- (b) Two scholarships of Rs. 30 p.m. each to students studying Arabic in the M.A. Class.
- (c) Three scholarships of Rs. 15 p.m. each to students taking up Arabic in the B.A. Class.
- (d) Four scholarships of Rs. 10 p.m. each to students taking up Arabic in the Intermediate Class.

B. Islamic Studies.

- (a) Two scholarships of Rs. 30 p.m. each to students studying Islamic Studies in the M.A. Class.
- (b) Three scholarships of Rs. 15 p.m. each to students taking up Islamic Studies in the B.A. Class.

2. THEOLOGY SCHOLARSHIPS

Three scholarships of Rs. 25 p.m. each to students reading in B. Th. Previous Class.

Three scholarships of Rs. 25 p.m. each to students reading in B. Th. Final Class.

3. SANSKRIT SCHOLARSHIPS

One scholarship of Rs. 10 p.m. to a Muslim Student taking up Sanskrit in B.A. Class and one of Rs. 8 p.m. to a Muslim Student taking up Sanskrit in Intermediate Class.

4. SCIENCE SCHOLARSHIPS

- (a) One M. Sc. scholarship of Rs. 10 p.m. (in the M. Sc. Previous Class).
- (b) Five B. Sc. scholarships each of Rs. 6 p.m. to students of III Yr. Class studying for the B. Sc. Degree (Pass or Honours).

5. UNIVERSITY MERIT SCHOLARSHIPS

1. To Aligarh Graduates, joining the M. A. Class and **not taking up law** (except with the permission of the Dean and the Head of the Department of Studies concerned) :—

One scholarship of Rs. 25 and one of Rs. 20 to those standing highest in the B.A. Examination provided that a scholarship of Rs. 25 will be awarded only to a student placed in the first division and failing such a candidate, two scholarships of Rs. 20 will be awarded.

One scholarship of Rs. 25 to the best first class Honours Graduate of the year, failing such a candidate, a scholarship of Rs. 15 to the best second class Honours Graduate.

2. To Aligarh Graduates joining the M. Sc. Class. Three scholarships, as in one above.

3. One scholarship of Rs. 20 to the student passing highest at the LL.B. Previous Examination and joining the LL.B. Final Class.

4. To students who have passed the Intermediate Examination (Arts) as Regular students joining the B.A. Class :—

Three scholarships of Rs. 20, Rs. 15 and Rs. 8 p.m. respectively to those standing highest in the Examination provided that a scholarship of Rs. 20 will be awarded only to a student placed in the first division and failing such a candidate, two scholarships of Rs. 15 each and one of Rs. 8 will be awarded.

5. To students who have passed the Intermediate Examination (Science) as Regular students, joining the B. Sc. Class :—

Three scholarships, as in 4 above.

6. To students who have passed the Intermediate (Commerce) Examination as Regular students joining the B. Com. Previous Class :—

Two scholarships of Rs. 20 and Rs. 15 p.m. respectively to those standing highest in the Examination under the same conditions as in No. 4 above.

7. To students standing first and second at the B. Com. (Final) Examination joining the M.A. Class and not taking up law, except with the permission of the Dean and the Head of the Department of Study concerned ; provided that a scholarship of Rs. 25 p.m. will be awarded only to a student placed in the first division and failing such a candidate, two scholarships of Rs. 20 p.m. will be awarded.

8. B. Sc. Engineering :

(a) For standing first and second at the I Yr. Examination and joining the II Yr. Class—Rs. 10 p.m. each.

(b) To first among those passing the II Yr. (Electrical and Mechanical) joining the III Yr. Electrical—Rs. 15 p.m.

(c) To first among those passing the II Yr. (Electrical and Mechanical) and joining the III Yr. Mechanical—Rs. 15 p.m.

(d) For standing first at the II Yr. (Civil) and joining the III Yr. (Civil) —Rs. 15 p.m.

9. Diploma in Engineering:

(a) For standing first at the I Yr. and joining the II Yr.—Rs. 8 p.m.

- (b) For standing first at the II Yr. and joining the III Yr.—Rs. 10 p.m.

10. To students who have passed the High School Examination as regular students and joining the Intermediate Class :

One scholarship of Rs. 15 and two of Rs. 10 p.m. each to those standing highest in the Examination, provided that the scholarship of Rs. 15 p. m. will only be awarded if the student is placed in the first division and failing such a candidate three scholarships of Rs. 10 p. m. each will be awarded.

6. GENERAL MERIT SCHOLARSHIPS

- (a) To Graduates of any Indian University joining the M.A. Previous Class and not taking up Law (except with the permission of the Dean and Head of the Department of Study concerned)—one scholarship of Rs. 15 and one of Rs. 10 p. m. provided that the scholarship of Rs. 15 p. m. will be awarded to a student placed in the first division, and failing such a candidate, two scholarships of Rs. 10 each will be awarded.
- (b) To Graduates of any Indian University joining the M. Sc. previous Class one scholarship of Rs. 15 p.m. and one of Rs. 10 p. m. provided that a scholarship of Rs. 15 p. m. will be awarded to a student placed in the first division, and failing such a candidate two scholarships of Rs. 10 p. m. each will be failing awarded.
- (c) To students who have passed the Intermediate or equivalent examination of an Indian University or recognised Board, securing first division and joining the B.A. or B.Sc. Class. Four scholarships of Rs. 12 p. m. each.
- (d) To students who have passed the High School or equivalent examination of an Indian University or recognised Board, securing first division and joining the intermediate Class. Four scholarships of Rs. 10 p.m. each.

7. SCHOLARSHIPS FOR GIRLS

Two scholarships each of Rs. 10 p.m. to those who stand highest among the girl candidates in the High School Examination and prosecute their further studies at the Muslim Women's College, Aligarh.

These scholarships will not be available to girls who obtain University Merit Scholarship.

One scholarship of Rs. 12 p.m. to a girl standing highest among the girl candidates at the Intermediate Examination in the first or second division and prosecuting her further studies at the Muslim Women's College, Aligarh.

3. SPECIAL SCHOLARSHIPS

- (a) **Maharaja Mohindra Singh Scholarships**—Two scholarships of Rs. 4 p.m. each (for eight months only) to students standing first in the Promotion Examination of Class XI in Arts and Science respectively (to be awarded on the recommendation of the Dean concerned.)
- (b) **Sir Azizuddin Ahmed Scholarships**—One scholarship of Rs. 10 p. m. to a student of Biswan, or if such student is not available to that of any district in Oudh studying at this University (to be awarded by the Academic Council on the recommendation of the Vice- Chancellor).
- (c) **Qadria Scholarship**—One scholarship of Rs. 7 p. m. to be awarded in alternate years to a Sunni Muslim student of Nagina, or if no such student is available, to that of any place in the Bijnor District, or failing such student, to any other Sunni Muslim student of the University (to be awarded to a student of the Intermediate Class. If no such student is available, to that of B.A. or B. Sc. Class; and if such student is also not available, to that of M.A. or M. Sc. Class).

9. SCHOLARSHIPS TO B. ED. STUDENTS

Twenty scholarships of Rs. 20 p. m. each for 10 months to students of the B. Ed. Class who are *bona fide* residents of U. P.

10. SCHOLARSHIPS IN MUSLIM HISTORY AND MUSLIM PHILOSOPHY

Two scholarships of Rs. 50 p. m. each to students who take up M.A. with Muslim History or Muslim Philosophy, after passing M.A. in Arabic. The scholarship in Muslim Philosophy will be awarded to those who satisfy the following conditions :—

- (a) They have taken their B.A. Degree with Philosophy as

one of their subjects and for those who join after 1943 have taken Muslim Philosophy as one of their papers for the B.A. Examination, with additional Arabic Texts.

- (b) They have passed the M. A. Examination in Arabic or possess other qualifications in Arabic recognised by the Academic Council in this behalf.

11. SIR WILLIAM MARRIS SCHOLARSHIP

One scholarship of Rs. 25 p. m. tenable for nine months to a student of the University who, in the opinion of the Vice-Chancellor, has done best in the examination for Bachelor's Honours Degree and intends prosecuting his studies further for a Master's Degree. The scholarship shall be awarded alternately to Arts and Science students.

12. RESEARCH SCHOLARSHIPS

Two scholarship of Rs. 50 p. m. each to students carrying on research in Arts and Science subjects.

13. BHOPAL STATE CRICKET SCHOLARSHIP

One scholarship of Rs. 15 p. m. Applications to be submitted to the Registrar with the recommendation of the President of the Cricket Club.

14. NAWAB AGHA ALI RAZA KHAN SCHOLARSHIP

The amount of this scholarship is the interest realised by investment of Rs. 1,000 donated by the above donor, to be paid in a lump sum to the poorest and most deserving Shia student of the University, whom the Vice-Chancellor may select.

14. SIR SHAH MOHD. SULAIMAN SCHOLARSHIP

One scholarship of Rs. 25 p. m. This scholarship will be awarded by the Academic Council to a promising student of B. Th. or M.A. in Arabic or Persian Class on the recommendation of the Vice-Chancellor.

LOANS

I. The Duty Society Loans

The Muslim University Duty Society grants a limited number of loans without interest to poor and deserving students of the University.

II. M. E. Conference Loans

The All-India Muslim Educational Conference awards a few scholarships in the shape of loans to the students of the B.Ed. Class of the University.

Free and Half Free Studentships

Remission of the whole of the tuition fee cannot be granted to more than ten per cent of the number of registered students and remission of half of the tuition fee cannot be granted to more than another ten per cent of the number of such registered students. No remission is admissible in the tuition fees for the LL.B. Classes.

Library and Laboratories

The University Library contains about 70,000 books in the general, 17,000 in Oriental section (including about 4,000 manuscripts in the Subhanullah Collections), about 15,000 books in the Scientific and Technical Section and 244 journals. The library also subscribes to important journals and periodicals. The Library is open to students for reading, and books can be borrowed by them. There are also special Seminar libraries attached to different Departments. The Library and the School Museum of the All-India Muslim Educational Conference are open to the students of the Teachers' Training College.

Laboratories for Physics, Chemistry, Botany and Zoology, Geology, Geography and Psychology Departments are furnished with the latest scientific equipment. Special Research Laboratories have been equipped and all facilities for research are given.

Physical and Medical Inspection

The University is provided with a hospital, under a qualified Medical Officer and two Sub-Assistant Surgeons with the necessary staff. The hospital has spacious and airy rooms for indoor

patients. The Civil Surgeon of Aligarh is called in for consultation in case of serious illness. All resident students undergo a medical examination.

Healthy open air exercises, suitable to the physique of the students are encouraged and hours are set apart for this purpose.

Moinuddin Art Gallery

This has been constructed with Rs. 50,000 endowed by Prof. Moinuddin Ahmad of Wilson College, Bombay, and furnished with the paintings presented by the Donor. It is open to the public.

Publication and Extension Work

A highly successful system of University Extension lectures is in operation and Lecturers are arranged to be delivered on learned and interesting subjects. The University has its own press for the work of publishing the Aligarh Magazine conducted by the students themselves, the Muslim University Gazette, the official organ of the University, and the University Journal conducted by the University Staff. Arrangements are often made to provide for vacation lectures to teachers in Secondary schools.

Military Training

The University possesses two Platoons of the National Cadet Corps. The movement is very popular and there is always a large number of recruits on the waiting list.

Associations in the University

The most important University Association is the Muslim University Union run on the lines of the Cambridge and Oxford Unions. It is the centre of the social and intellectual life of the students. Other Associations are :—

The Releigh Society
The Historical Society
The Economic Society
The Philosophical Society
The Arabic Society
The Physical Society
The Persian Society

The Urdu Society
The Curzon Geographical Society
The Mathematical Society
The Scientific Society
The Chemical Society
The German Society

Residence and Cost of Living

The University maintains four Halls consisting of several Hostels under the general supervision of the Provosts. More than 75 per cent of the students are in residence. The fees vary from Rs. 55 to Rs. 65 per month including tuition fees, lodging, food, medical attendance and games.

Budget

The figures of revenue income and expenditure for 1952-53 are Rs. 23,09,294 and Rs. 29,80,898 respectively.

Women's Education

Women students are admitted to the M.A., M.Sc., B. Ed., M.Ed., and LL.B. classes of the University. The teaching arrangements for the B.A., B.Sc. classes are made in the Women's College.

Sports and Games

The University has separate clubs for Cricket, Football, Hockey, Tennis, Swimming and Athletic Sports. The Presidents of these clubs are chosen from among the staff of the University, and all clubs are under the General Games Club. The Bhopal State gives a grant of Rs. 2,400 a year to the Cricket Club.

The late lamented Nawab Sir Mohammad Nasrullah Khan of Bhopal presented a silver trophy which is given to the winner of All-India Cricket Tournament held every year in Aligarh.

Nawab Salar Jang Bahadur of Hyderabad has presented a Shield to the Football Club which is given every year to the winning team in the All-India Football Tournament.

The new Gymnasium which was constructed with the munificent donations of His Highness the Maharaja Tukoji Rao Holkar of Indore and Capt. Nawab Dr. Sir Mohammad Ahmad Said Khan, K.C.S.I., K.C.I.E., M.B.E., LL.D., has now been completely fitted up with up-to-date apparatus. Provision is also made for wrestling and binnot.

Military drill has been made compulsory for the students of the School and Intermediate classes and optional for the students of the Degree classes. It is also proposed to start a Miniature Rifle Club.

Courses of Study, Degree and Examinations

The University offers the degrees of B.A. (Pass and Honours), M.A., Ph. D. and D. Litt. in Arts; B. Sc. (Pass and Honours), M. Sc., Ph. D. and D. Sc. in Science; B. Sc. (Engineering) Civil, Mechanical, Electrical; LL.B., LL.M., and LL.D. in Law; B. Ed., M. Ed. in Teaching and the Degrees of Bachelor, Master and Doctor of Theology and Bachelor's Degree in Unani Tib and Surgery and Bachelor in Commerce; Diploma in Ophthalmology, Diploma in Foreign Affairs and Diplomas in Electrical, Mechanical and Civil Engineering and Certificate in Library Science.

Courses of Study

I. Courses for which Instruction is Provided.

I. Intermediate (Arts, Science or Commerce).

Duration of Courses—Two academic years (called First and Second Years.)

Subjects—A. Compulsory :

- (i) Muslim (Shia or Sunni) Theology or History of Civilization.
- (ii) Urdu with Elementary Hindi or Hindi with Elementary Urdu. (Students belonging to areas where Hindustani is not the spoken language may offer instead either Elementary Urdu or Elementary Hindi).

B. Optional :

Intermediate Arts.

English and any three of the following subjects :—

- (1) Arabic or Persian or Sanskrit or Urdu or Hindi, (2) Philosophy, (3) Psychology, (4) History, (5) Islamic History, (6) Economics, (7) Elementary Politics or Civics, (8) Mathematics, (9) Geography, (10) Military Science, (11) Education, and (12) Domestic Science (for women candidates only).

Intermediate Science.

English and any three of the following subjects :—

- (1) Physics, (2) Chemistry, (3) Botany, (4) Zoology, (5) Geology, (6) Geography, (7) Mathematics, and (8) Military Science.

Intermediate Commerce,

- (1) English, (2) Book-keeping and Accountancy, (3) Business Methods and Correspondence, (4) (i) Elementary Economics, (ii) Commercial Geography, (5) Any one of the following subjects :—(i) Steno-Typing (Short-hand and Type-writing), (ii) Elements of Banking, (iii) Elements of Industrial Organisation, and (iv) Mathematics.

2. B.A. and B.Sc. (Pass) Course.

Duration of Course.—Two academic years (called B.A. or B. Sc. Junior and Senior Classes, or simply III and IV years.)

Subjects—A. Compulsory.

- (i) General English, (ii) Muslim (Shia or Sunni) Theology or History of Civilization, (iii) Urdu with Elementary Hindi or Hindi with Elementary Urdu, (Students belonging to areas where Hindustani is not the spoken language, may offer—instead either Elementary Urdu or Elementary Hindi).

B. Optional :—

For B.A. Students.

Any three of the following subjects :—

- (1) English Literature, (2) History, (3) Philosophy, (4) Political Science, (5) Psychology, (6) Economics, (7) Mathematics, (8) Statistics, (9) Geography, (10) Military Science, (11) Arabic, (12) Persian, (13) Sanskrit (14) Urdu, (15) Hindi, (16) Islamic Studies, (17) Education, and (18) Military Science.

For B. Sc. Students.

Any three of the following subjects :—

- (1) Physics, (2) Chemistry, (3) Botany, (5) Zoology, (5) Geology, (6) Geography, (7) Military Science, and (8) Mathematics and Statistics.

3. B. Com. Course.

Duration of Course.—Two academic years. The Examination for the degree will be held in two parts, Previous and Final. The duration of the course for the Previous as well as the Final Examination is of one academic year each. The division in which candidates successful at the Examination are to be placed shall be determined on the combined result of the Previous and the Final Examinations.

Subjects :—

- (i) General English, (ii) Muslim (Sunni or Shia). Theology or History of Civilization, and (iii) Urdu with Elementary Hindi or Hindi with Elementary Urdu. (Students belonging to areas where Hindustani is not the spoken language, may offer instead either Elementary Urdu or Elementary Hindi).

Students may appear at the Examination in one or more of the above subjects either with the Previous or with the final Examinations.

The Previous Examination shall comprise the following :—

- (a) Principles of Economics, (b) Economic Development of India, (c) Commercial and Industrial Law, and (d) Elements of Statistics.

The Final Examination shall comprise any two of the following groups of subjects :—

- (a) *Banking and Finance* :— (i) Currency and Banking, (ii) Public Finance, and (iii) Accounts.
 (b) *Industry* :—(i) Industrial and Commercial Organisation, (ii) Advanced Accounts, and (iii) Secretarial Practice.
 (c) *Trade and Transport* :—(i) Trade (Internal and Foreign), (ii) Transport, and (iii) Co-operative Organisation.

4. B.A. and B.Sc. Honours Course.

Duration of the Course.—Three academic years. A student who passes the B.A. or B. Sc. Honours (Examination) will be eligible for admission to the M.A. or M. Sc. (Final) Class.

Subjects :—The Honours Course includes the study of a Main Subject, one subsidiary subject and General English.
 Main Subjects for the B. A. (Hons.) Course.

Any one of the following :—
 English Literature, Philosophy, Economics, History, Political Science, Arabic, Persian, Sanskrit, Urdu, Hindi, Islamic Studies, Psychology, Geography and Mathematics.

Main subjects for the B. Sc. (Hon.) Course

Any one of the following :—
 Geography, Mathematics, Physics, Chemistry, Botany, Zoology and Geology—

Note :—Honours Courses in the above mentioned subjects will be opened only if so desired by the Departments of Studies concerned.

5. M. A. and M. Sc. Course.

Duration of Course :—Two academic years. The Examinations for the degree will be held in two parts, Previous and Final. The duration of the course for the Previous as well as the Final Examination is one academic year each.

Subjects :—Courses of Instruction for the Master's degree are provided in the following subjects :—

M.A. English Literature, History, Political Science, Economics, Philosophy, Psychology, Arabic, Persian, Sanskrit, Urdu, Hindi, Geography, Mathematics and Islamic Studies.

M.Sc. Psychology, Geography, Mathematics, Physics, Chemistry, Botany, Zoology and Geology.

6. LL.B. Course.

Duration of the Course.—Two academic years. The examination for the degree will be held in two parts, Previous and Final. The duration of the course for the Previous as well as the Final Examination is one academic year each. Results of both the Examinations are declared separately.

7. Courses for Degrees in Muslim Theology.

Instruction is provided by the University for the degrees of Bachelor and Master of Theology in Sunni as well as Shia Theology.

Duration of the Course—Two academic years. The Examination is divided into two parts, Previous and Final. The duration of the course for each Examination is one academic year.

M. Th. Course is open to students who have taken the B. Th. Degree.

Duration of the course is one academic year.

8. Courses for Degrees in Education.

Instruction is provided for the degrees of Bachelor and Master of Education and for Ph. D. in Education.

9. Courses for the Degree and Diploma in Engineering.

B. Sc. in Civil, Mechanical or Electrical Engineering

Minimum qualification is Intermediate Examination with Mathematics, Physics and Chemistry. The duration of the course is three academic years, followed by practical training for one year.

Diploma in Civil, Mechanical or Electrical Engineering—

Minimum qualification is High School Examination with Mathematics as a subject. The duration of the course is three academic years, followed by practical training for one year.

10. Bachelor of Unani Medicine and Surgery.

The B.U.M.S. Course is open to students who have passed the High School or an Equivalent Oriental Examination. Duration of the course is five academic years.

11. Diploma in Ophthalmology.

The D. O. Course is open to students who have passed the M. B. B. S. or an Equivalent Examination. The duration of the course is one academic year.

12. Diploma in Foreign Affairs.

The course is open to students who have taken the Bachelor's Degree of a recognised University. Duration of the course is two academic years.

13. Certificate in Library Science.

The minimum qualification for admission is the Intermediate Examination of any recognised University or Board or, in the case of those who at the time of admission have served in a Library for at least one year, the minimum qualification will be the High School or Equivalent Examination of a recognised University or Board. The duration of the course is about four months.

III. Course of Research for the Ph. D. Degree.

Minimum qualification for admission to the Research Course for the Ph. D. Degree. is M.A. or M. Sc. Degrees of the University or a Degree recognised by the University as its equivalent.

Minimum period of residence in Aligarh, required for the degree, is two years.

Scale of Marks

			Minimum I Div. pass Marks	II Div.	III Div.	
			per cent	per cent	per cent	per cent
High School	...	...	33	60	45	33
Intermediate	...	...	33	60	45	33
B.A. or B.Sc.	...	...	33	60	45	33
B. Com.	...	...	36	60	48	36
B. A. or B. Sc. (Hons.)	...	...	36	60	48	36
M.A. or M.Sc. (Prev. Final) and M. Ed.	...	...	36	60	48	36
LL.B. (Prev. Final)	...	...	30	65	50	...
B. Ed.	...	...	36	60	48	36
B. Th. (Prev. Final)	...	...	36	60	48	36
B. Sc. (Engineering) Elec- trical	...	...	40	60	50	...
B. Sc. (Engineering) Mechanical	...	...	40	60	50	...
B. Sc. (Engineering) Civil	...	...	40	60	50	...
LL.M.	...	...	65	...	...	...
Tibbiya (B.U.M.S.)	...	...	40	65	45	40

MYSORE UNIVERSITY

Introductory: Character of the University

The University of Mysore was the first University to be founded in the Indian States. The two State Colleges which had long been affiliated to the Madras University formed the nucleus of the new University of Mysore. The establishment of the University received the sanction of His Highness the Maharaja of Mysore on 22nd July, 1916.

A regulation amending and consolidating the provision of the Mysore University Regulation V of 1916, as amended from time to time, received the assent of His Highness the Maharaja on the 6th day of January, 1933, and came into force on the 1st day of July, 1933.

The University is empowered to affiliate Colleges under conditions prescribed in the Statutes and Ordinances.

There are eight Intermediate Colleges at Bangalore. Kolar, Mandya, Hassan, Chickmagalur, Chitaldrug, Davangere, and Shimoga. There is a Medical School at Bangalore. There are two Colleges for Women, one at Mysore and one at Bangalore.

There are fourteen affiliated Colleges—nine at Bangalore four at Mysore and one at Davangere.

CHANCELLOR

His Highness the Maharaja Sri Jaya Chamaraja Wadiyar Bahadur, G.C.S.I., G.C.B. of Mysore.

OFFICERS OF THE UNIVERSITY

VICE-CHANCELLOR

Dr. B.L. Manjunath, B.A., M.Sc. (Lond.) D. Phil (Oxon).

REGISTRAR

Sri F. J. Noronha, M. A. (Lond.)

DEANS

Faculty of Arts :

Dr. T. A. Purushottan, M.A., Ph.D. (Lond.)

Faculty of Science :

Dr. C. N. Srinivasa Iyengar, D.Sc.,

Faculty of Engineering and Technology :

Sri C. Gopalakrishnan, B. Sc., B. E., A.M.I.E.

Faculty of Medicine :

Sri Y. Appajee, B.A., M.B., (Cal.), M.Sc. (Lond.)

Faculty of Commerce :

Sri S. R. Mandre, M.A., B.Com., R.A.F.S.A.A., Inc. Acct. (Com. Col.)

Faculty of Law :

Sri M. Narayana Rao, M.A., B.L.,

Faculty of Education :

Sri A. C. Deve Gowda, M.A. (Col.), B.T., M.Ed., (Leeds), Dip.-Edn.

The following are the Heads of Departments

English	...	Mr. W. G. Eagleton, M.A. (Cantab) J.P. (M.C.) (On foreign service)
		Sri S. V. Ranganna, M.A.
Kannada	...	Sri K. V. Puttappa, M.A. (M.C.)
Sanskrit	...	Sri M. Lakshminarasimhiah, M.A. (M.C.)
Tamil	...	Sri S. Rudrapathi, M.A. (C.C.B.)
Telugu	...	Vidvan K. Subbaramappa, M.A., B.O.L., B.E., (M.C.)
Hindi	...	Sri N. Nagappa, M. A. (M.C.)
Urdu, Persian & Arabic		Dr. Khizer Ali Khan, M.A., Ph.D. (Lond.) (M.C.)
Mathematics	...	Dr. B. S. Madhava Rao, D.Sc., F.R.A.S. (C.C.B.)
Physics	...	Dr. S. Ramachandra Rao, M.A., Ph. D., D.Sc. (Lond.) F. Inst. P. (C.C.B.)
Chemistry	...	Dr. G. Narayan, M.Sc., Ph. D. (C.C.B.)
Geology	...	Sri M. G. Chakrapani Naidu M.Sc. (C.C.B.)
Zoology	...	Dr. B.R. Seshachar, D. Sc. (C.C.B.)

Botany	...	Dr. L. Narayana Rao, M. Sc., Ph. D. (Lond.), F.R.M.S. (C.C.B.)
History	...	Dr. M.V. Krishna Rao, M.A., B.T., D. Litt.
Economics	...	Sri V.L. D'Souza, B.A., B. Com. (Lond.), (M.C.)
Psychology	...	Dr. B. Kuppaswamy Naidu, M.A., D. Litt., (M.C.)
Philosophy	...	Dr. T.A. Purushottam, M.A. Ph. D. (Lond.)
Teaching	...	Sri A.C. Deve Gowda, M.A., (Col.), B.T. M. Ed. (Leeds), Dip-Edn.
Political Science		Sri L. Srivantiah, M.A., M.Sc. (Lond.), Bar-at-Law. (M.C.)
Journalism	...	Sri Nadig Krishna Murthy, M.A., (M.C.)
Indology	...	Sri K. A. Nilakanta Sastry, M.A., (M.C.)
Home Science	...	Dr. B. Susheela Lingaiah, M.Sc., M.S., Ph.D., (M.C.W.B.)
Statistics	...	Sri S. K. Ekambaram, B.Sc. (Hons.) ; M.A. (Cantab.), (M.C.)

Department of Medicine

Principal, Medical College :

Sri Y. Appajee, B.A., M.B., M. Sc. (Lond.)

Principal, Medical School :

S. Vasudeva Rao, M.B.B.S. D.O.M.S. (Eng.)

Surgery	...	Sri M. Authikesevalu, M.B.B.S., F.R.C.S. (Canada) (Part-Time Med. Col.)
Physiology	...	Sri S. Hiriyanniah, M.B.B.S., (Full-Time Med. Col.)
Anatomy	...	Sri Y. Appajee, B.A., M.B., M. Sc. (Lond.) (F. T. Med. Col.)
Pathology	...	Sri V. R. Naidu, M.B.B.S., M.S., M.R.C.P. (Lond.) D.T.M.H., (Eng.) F.A.Sc. P. (Medi. Col.)
Medicine	...	Sri M. Basavaraj Urs, B.Sc., M.B.B.S., D.T.M. & H. (Part-time Med. Col.)
Midwifery	...	Sm. M. G. Hanumattekar, M.B.B.S., M.D. (Med. Col. Part-time)
Gynaecology	...	Sm. B. Lalithalingiah, M.B.B.S., M.S. (P.T. Med. Col.)
Ophthalmology	...	Sri M.B. Sundara Rao, M.B.B.S., D.O.M.'s (Lond.) (P. T. Med. Col.)

Pharmacology & Materia Medica	Sri G. S. Raghunatha Rao, B. Sc., M.B.B.S., D. Phil. (P. T. Med. Col.)
Forensic Medicine	Sri Charles D'Souza, B.Sc., M.B.B.S.

Department of Engineering and Technology

Mechanical	... Sri B. R. Narayana Iyengar, B. Sc., B.E., S. M. (Mech.) (M.I.T.) A.M.I.E. (Ind.) Mem. A.S.T.M., Me. S.E.S.H.
Electrical	... Sri K. Chanabasaviah, B.E., M.S. (E.E.) (Wis) A.M.I.E. (Ind.)
Commerce	... Sri S.R. Mandre, M.A., B. Com. R.A. F.S.A.A., Inc. Acct. (Com. Col.)
Agriculture	... Sri M. Mallaraj Urs, B. Sc., B. Sc. (Agri.) (Edin) (Agri. Col.)
Law	... Sri M. Narayana Rao, M.A., B.L., (Law Col.)

Note to Abbreviations Used

C. C. B.	... Central College, Bangalore.
M. C.	... Maharaja's College, Mysore.
E. C. B.	... Engineering College, Bangalore.
Med. C.	... Medical College, Mysore.
Med. S.	... Medical School.
T. C. M.	... Teachers' College, Mysore.
C. O. C. B.	... Commerce College, Bangalore.
Agr. C.	... Agricultural College, Bangalore.
Law C.	... Law College, Bangalore.
P. T.	... Part-Time
F. T.	... Full-Time

Constitution of the University

H. H. The Maharaja of Mysore is the Chancellor of the University.

The Officers and Authorities of the University are :—

1. The Vice-Chancellor, 2. The Registrar, 3. The Senate,
4. The University Council. 5. The Academic Council.
6. The Faculties and their Deans. 7. Such other officers and authorities as may be provided for by the Statutes.

The Vice-Chancellor who is a full-time officer is the *ex-officio* Chairman of the Senate and the University and the Academic Councils. He is also the principal Executive Officer and the academic officer of the Senate and of the Councils. The executive government of the University is vested with the University Council which consists of 15 members. The Senate with a maximum strength of 75 members is in entire charge of the general organization of the University and its administration including the institution and conferment of degrees. The Academic Council is the academic authority of the University and is responsible for the maintenance of the standard of teaching and examination in the University. The University at present includes the Faculties of Arts, Science, Engineering and Technology, Medicine, Law, Education and Commerce.

Number of students in the University under the different Faculties.

The following were the number of students under the respective Faculties :—during 1952-53

UNIVERSITY INSTITUTIONS

	Total Strength
Maharaja's College, Mysore (Arts)	1161
Medical College, Mysore (Medicine)	447
First Grade College, Mysore, (Arts & Science)	1573
Maharani's College for Women, Mysore (Art & Science)	465
Teachers' Colleges, Mysore (Arts & Science) ...	86
Central College, Bangalore (Science)	1450
Intermediate College, Bangalore, (Arts & Science) ...	1502
Maharani's College for Women, Bangalore (Arts & Science)	892
Engineering College, Bangalore (Engineering)	729
Medical School, Bangalore (Medicine)	498
College of Commerce, Bangalore, (Arts)	810
First Grade College, Tumkur (Arts & Science) ...	1160
Intermediate College, Shimoga (Arts & Science) ...	609
Intermediate College, Davangere (Arts & Science) ...	393
Intermediate College, Chitaldrug (Arts & Science) ...	343
Intermediate College, Hassan (Arts & Science) ...	388
Intermediate College, Chickmagalour (Arts & Science)	151
Intermediate College, Kolar (Arts & Science) ...	349
Intermediate College, Mandya (Arts & Science) ...	199

Affiliated Colleges

St. Philomena's College, Mysore (Arts & Science) ...	873
B. M. Srinivasaiah College of Engineering, Bangalore. (Engineering)	735
Sri Krishnarajendra Silver Jubilee Technological Institute (Engineering & Technical, Bangalore) ...	89
Agricultural College, Bangalore (Science)	65
Law College, Bangalore (Arts)	250
Mount Cermal College, Bangalore (Arts & Science)	449
St. Joseph's College Bangalore (Arts & Science)	987
Saradavilas Intermediate College, Mysore (Arts & (Science)	521
Vijaya College, Bangalore (Arts & Science) ...	406
National College, Bangalore (Arts & Science) ...	471
Basappa Intermediate College, Bangalore (Arts & Science)	476
D. Banumiah's College of Commerce, Mysore (Arts)	228
National Institute of Engineering, Mysore (Engineering)	274
B.D.T. College of Engineering, Davangere (Engineering)	123
Total	19,152

Number of Successful Candidates in the different Examinations

The following is a statement of the results in various Examinations of 1952-53:—

April 1953

Examinations	No. Examined	No. Passed			Not Classed	Per- centage
		I Class	II Class	III Class		
B.A. Degree—						
Part I ...	673	1	16	332	...	52%
Part II ...	576	21	68	339	...	84.8
Part III ...	640	...	40	245	...	44.8
B.Sc. Degree—						
Part I ...	1603	1	38	923	...	60.1
Part II ...	1387	38	110	818	...	69.5
Part III ...	2018	87	146	340	5	28.7
B.A. (Hons.) Degree Preliminary—						
Part I ...	115	...	...	...	76	66.1
Part II ...	104	...	...	...	91	87.5
Part III ...	103	...	...	...	96	93.2

Examinations	No. Examined	No. Passed			Not Classed	Per- centage
		I Class	II Class	III Class		
B.Sc. (Hons.) Degree Preliminary—						
Part I ...	106	...	...	...	63	59.4
Part II ...	109	...	...	...	88	80.7
Part III ...	103	...	...	...	91	88.35

Eligible for the Degree—

B.A.	265
B.Sc.	520

Women Students

B.A. Degree—

	No. Examined	No. Passed
Part I	8	5
Part II	9	9
Part III	18	6
All Parts	144	62
	82	Eligible for the Degree

B.Sc. Degree—

All Parts	178	35
Part I only	7	7
Part II only	2	1
	No. Examined	No. Passed
Part III only	45	14
Parts I and III	13	3
	60	Eligible for the Degree

B.A. (Hons.) Preliminary—

All Parts	17	14
Part III only	2	2

B.Sc. (Hons.) Preliminary—

All Parts	15	12
Part II	1	1
Part III	2	2

September 1952

Examinations	No. Examined	No. Passed			Not Classed	Per- centage
		I Class	II Class	III Class		
B.A. Degree—						
Part I	264	...	...	92	...	...
Part II	143	...	8	58	...	...
Part III	267	...	1	112	...	...

Examinations	No. Examined	No. Passed			Not Classed	Per- centage
		I Class	II Class	III Class		
B.Sc. Degree—						
Part I	611	...	...	231	...	...
Part II	449	1	14	261	...	...
Part III	1011	4	42	189	6	...
B.A. (Hons.) Preliminary—						
Part I	42	...	...	...	25	...
Part II	18	...	...	...	13	...
Part III	21	...	...	...	15	...
B.Sc. (Hons.) Preliminary—						
Part I	29	...	...	...	21	...
Part II	24	...	...	...	14	...
Part III	13	...	...	...	10	...
No. of Candidates eligible for the Degree—						
B.A.						138
B.Sc.						285

Women Students

	No. Examined	No. Passed
B.A. Degree—		
All Parts	5	1
Parts I and III only	13	3
Parts II and III only	6	2
Part III only	14	14
Part I only	15	14
Part II only	15	10
Parts I and II only	10	3
	47	Eligible for the Degree
B.Sc.—		
All Parts	9	Nil
Parts I and III	19	2
Parts II and III	7	2
Part III only	63	22
Part I only	17	9
Part II	8	7
Parts I and II	8	3
	45	Eligible for the Degree
B.A. (Hons.) Preliminary—		
Part III only	4	2
Part I only	2	2
Parts I and II only	1	1
Part II only	1	1

	No. Examined	No. Passed
B.Sc. (Hons.) Preliminary—		
Part III only	1	1
Parts I and II only	1	...
Part I	2	1
Part II	1	Nil

INTERMEDIATE EXAMINATION

No. passed

	No. Examined	I Class	II Class	III Class	Not classed	Total	Percentage
Sept. 1952							
Arts	689	...	...	6	160	166	24%
Science	3,141	1	6	26	816	849	27%
Total	3,830	1	6	32	976	1015	
April 1953							
Arts	1279	7	59	160	119	345	27%
Science	5889	303	345	481	604	1733	29%
Total	7168	310	404	641	723	2078	

LADIES ONLY

	<i>Appd. Passed</i>	
Sept. 1952		
Arts	126	38
Science	241	98
	367	136
April 1953		
Arts	316	139
Science	607	257
	923	396

September 1952

Examinations	No. Examined	No. Passed.			Not Classed	Per- centage
		I Class	II Class	III Class		
Intermediate Examination in Commerce—						
Part I	243	...	...	2	59	25.1
Part II	107	...	...	2	49	47.6
Part III	153	...	...	2	47	32.0
Graduates appearing— for Part III only	6	...	...	...	3	50.0
Total Number of candidates passed					67	
B.Com. Degree Examination—						
Part I	81	...	2	42	...	53.1
Part II	63	...	...	21	...	33.3
Part III	94	...	...	49	...	52.1
No. of candidates eligible for the Degree					50	
First Examination	514	...	2	85	121	54.5
					72*	
Second Examination in Engineering—						
Civil	209	...	...	40	76+27*	68.4
Mechanical	106	...	...	18	22+4 *	50.9
Electrical	50	1	...	7	12+8 *	56.0
Third Examination in Engineering—						
Civil	133	...	4	28	62+15*	81.9
Mechanical	87	...	...	14	22+19*	63.2
Electrical	57	...	1	8	11+9 *	50.8
B.E. Degree—						
Civil	134	...	3	59	37+22*	90.2
Mechanical	102	...	3	11	12+23*	47.0
Electrical	44	...	2	13	6+7 *	59.0

*Get the benefit of Ordinance

No. of candidates appeared for the Examination in—

	No. appeared	No. passed
I.Com.	272	67
B.Com.	135	50
Engineering	1436	896

April 1953

Intermediate Examination in Commerce—

Part I	525	3	14	78	95	36.3
Part II	399	3	14	78	167	65.6
Part III	441	3	14	78	45	31.7

Examinations	No. Examined	No. Passed I Class	II Class	III Class	Not Classed	Per- centage
Graduates appearing—						
for Part III only	9	...	...	...	3	33.3
No. of candidates passed		...	...	..	...	148
B.Com. Degree—						
Part I	166	1	16	59	...	45.7
Part II	174	2	15	76	...	53.4
Part III	159	1	7	67	...	44.3
No. of candidates eligible for the B.Com. Degree					83	
First Examination in Engineering	753	50	162	...	107 133*	60.0
Second Examination in Engineering—						
Civil	284	20	116	...	21+45*	71.1
Mechanical	168	8	54	...	7+24*	55.3
Electrical	106	9	28	...	3+22*	51.4
Third Examination in Engineering—						
Civil	238	27	125	...	13+31*	82.3
Mechanical	157	7	22	...	12+26*	42.7
Electrical	128	4	21	...	6+27*	45.3
B.E. Degree—						
Civil	303	13	86	...	10+62*	56.4
Mechanical	166	6	17	...	21+28*	43.4
Electrical	60	3	11	...	9+13	60.0

*Get the benefit of ordinance

Lady candidates appearing for the Examination of April 1953

	No. appeared	No. passed
I.Com	5	5
B.Com.	1	..

No. of candidates appeared for the Examination—	
I.Com.	578 148
B.Com.	221 83
Engineering	2414 1409

The following is the statement of the results in various Examinations of 1952-53 :—

March- April 1953

(a) B.A. Hons. Degree (Final)	141	3	41	59	3*	75.1
(b) B.Sc. (Hons.) Degree (Final)	114	31	23	29	5*	68.4

*Eligible for pass degree.

Examinations	No. Examined	I. Class	No. II. Class	passed III. Class	Not Classed	Per- centage
(c) M.A. Degree	63	...	8	37	...	71.4
(d) M.Sc. Degree	53	...	17	18	...	66.0
(e) Post-Graduate	3	...	2	...	...	66.6

The No. of Women students successful at the several Examinations was as under:—

	No. Examined	No. Passed	I Class	II Class	III Class
(1) B.A. (Hons. Final)	24	20	Nil	8	12
(1) B.Sc. (Hons.) Final	14	11	3	4	2
				Pass Degree	2

April 1953

Examination	No. Examined	I Class	No. Passed II Class	III Class	Not Classed	Per- centage
B.T.	93	2	27	48	3	86.02
F.L.	223	...	9	41	2	23.3
B.L.	132	...	2	41	11	40.9
I.B.Sc. Textiles	36	1	27	...	..	77.7
II B.Sc. Textiles	31	1	16	...	3	64.5
Final B.Sc. Textiles	33	2	18	...	1	63.6
I L.M.P.	118	5	70	...	5	67.7
II L.M.P.	134	2	47	...	13	46.2
III L.M.P.	89	...	27	...	16	48.3
Final L.M.P.	43	...	22	...	6	65.1
Pre-Medical	37	1	12	...	20	89.1
I M.B. Part I	47	...	...	...	34	73.2
do. Part II	67	...	20	...	9	42.3
II M.B. Part I	43	...	29	...	..	67.4
do. Part II	50	...	16	...	11	54
do. Part III	56	...	19	...	12	55.3
Final M.B.	27	...	9	...	7	59.2
French Diploma	2	...	...	...	2	100

April 1953

LADY STUDENTS

Examination	No. Examined	No. Passed
French Diploma	2	2
F.L.	4	1
B.L.	5	2
I.B.Sc. Textiles	2	2
II B.Sc. Textiles	...	...
Final B.Sc. Textiles	2	...
B.T.	21	17
I L.M.P.	25	16
II L.M.P.	20	13
III L.M.P.	16	11
Final L.M.P.	8	7
Pre-Medical	3	2
I M.B.—Part I	11	7
do. Part II	12	4
II M.B.—Part I	8	6
do. Part II	9	5
do. Part III	11	8
Final M.B.	5	4

September 1952

Examination	No. Examined	No. Passed			Not. Classed	Per- centage
		I Class	II Class	III Class		
I L.M.P.	40	...	3	...	26	72.5
II L.M.P.	97	...	17	...	34	52.5
III L.M.P.	72	...	14	...	23	51.3
Final L.M.P.	44	...	18	...	15	75
F.L.	105	...	2	40	1	40.9
B.L.	45	...	1	11	...	26.6
B.L.	10	...	2	...	6	80
Final B.Sc. Textiles						

December 1952

Pre-Medical	78	6	21	...	13	51.2
I M.B.—Part I	51	...	...	...	35	68.6
I M.B.—Part II	91	...	36	...	7	47.2
II M.B.—Part I	50	1	34	...	...	70
II M.B.—Part II	54	...	26	...	8	62.9
II M.B.—Part III	59	...	24	...	7	52.5
Final M.B.	30	...	11	...	8	63.3

September 1952

LADY STUDENTS

Examination	No. Examined	No. Passed
F.L.	2	...
B.L.	1	...
Final B.Sc. Textiles	1	1
I L.M.P.	7	7
II L.M.P.	16	10
III L.M.P.	13	10
Final L.M.P.	10	9

December 1952

Pre-Medical	11	8
I M.B.—Part I	15	9
do. Part II	15	6
II M.B.—Part I	9	7
do. Part II	7	5
do. Part III	7	3
Final M.B.	9	6

September 1952

Examination	No. Examined	No. Passed			Not Classed	Per- centage
		I Class	II Class	III Class		
Final B.Sc. Agriculture	20	...	5	...	6	55.5

April 1953

I B.Sc. Agriculture	24	1	14	...	...	62.5
II B.Sc. Agriculture	36	1	23	...	2	72.21
Final B.Sc. Agriculture	25	...	8	...	5	52.0

Number of Candidates who took degree at the convocation of 1952.

M.A. ...	...	...	...	...	...	35
B.T. ...	...	...	...	...	...	45
B.A. (Hons.) ...	...	...	...	...	...	88
B.A. ...	...	...	...	...	...	139
B.Com. ...	...	...	...	...	...	98
D.Sc. ...	...	...	...	...	...	1
M.Sc. ...	...	...	...	...	...	30
B.Sc. (Hons.)...	...	...	...	...	...	63
B.Sc. ...	...	...	...	...	...	305
B.Sc. (Agri.) ...	...	...	...	...	...	18
B.Sc. (Textiles)	...	...	...	...	...	22
B.L. ...	...	...	...	...	...	25
B.E. ...	...	...	...	...	...	170
M.B.B.S. ...	...	...	...	...	...	34

Total ... 1,073

Particulars relating to Masters' Degree Examination held in July-August 1953 :—

M.A.

				Boys	Girls
No. appeared...	...	...	...	50	13
No. passed ...	...	...	...	...	...
First class ...	...	...	...	7	1
Second class ...	...	...	...	30	7
Awarded Degree with distinction ...	...	...	...	...	...
Awarded Degree ...	...	...	...	...	...

M.Sc.

No. appeared	...	...	...	42	11
No. passed ...	...	...	...	27	8
First class ...	...	...	...	14	3
Second class ...	...	...	...	13	5

Post-Graduate Diploma Examination in Indology held in July 1953 :—

				Boys	Girls
No. appeared	...	...	...	1	2
No. passed ...	...	...	...	Nil	2
First class ...	...	...	...	...	...
Second class ...	...	...	...	...	2
Third class ...	...	...	...	...	...

Scholarships and Medals

The University has received a large number of endowments ranging from Rs. 300 to Rs. 1,02,000 for the award of medals, prizes and scholarships. The total amount of endowments at present stands at about Rs. 10,47,850

Special Activities

Among special institutions and activities of the University particular mention may be made of the Oriental Research Institute, the University Library and Publications and Extension Lectures. The Oriental Research Institute is engaged in collecting, conserving and editing manuscripts of important works in Sanskrit and Kannada. It now has a total of nearly 11,150 manuscripts. The University Library is a large and growing institution, with a very well-equipped reading room and over 62,500 books on the shelves. It has been included in the list of Depository Libraries of the Carnegie Endowment for International Peace. The Library is organised under a University Librarian.

Most Colleges have hostels attached to them, and these institutions with their reading rooms and sports facilities are important centres of the social life of students.

The University also provides a unit in the Scout Movement in the State, and has an organisation with its own District Commissioner at the head; and the benefits of scouting as a field of social service are secured for the members of the University.

(Unions and Associations form an important part of University life. There is a Union at every University centre in which teachers and students meet on common ground and take part in indoor games and serious or light intellectual contests. Many of the Unions undertake also philanthropic work such as collecting funds for the aid of poor students, besides welfare work like village improvement and the spread of literacy).

A recent development has been the introduction of Free Canteens in most colleges for affording relief to those students who are compelled by lack of means to go without food for long hours during the working day. A liberal grant of about Rs. 10,000 a year, is provided for this purpose in the budget, and Canteen Committees in the various colleges administer the funds to the greatest possible advantage of needy students. The system has been working satisfactorily, and even better results

could be expected when conditions of the supply of foodstuffs improve.

College Libraries.—Besides the above Libraries, each constituent and Intermediate College has its own library for the use of the students.

Scheme of Fellowships

The Fellowships are awarded to persons who have given evidence of capacity to do research work. Junior members on the staff of the University are also eligible for selection.

Publication and Extension Work

There is an Extension Lectures Committee which arranges an annual Programme. During each year a number of lectures are delivered in different parts of the State.

Under the auspices of the University Teachers' Association Extension Lecture camps are arranged each year in the interior parts of the State and Lectures are published in Kannada under the Extension Lectures Handbooks Series, for sale. These publications are in great demand.

The University encourages the publication of original works particularly in Kannada. The Kannada Publication Committee arranges for the publication of monographs in Kannada on such subjects as Science, History, Geography, Philosophy, Literature, Political Economy, Education and Fine Arts so that teachers and others who know Kannada only may be able to continue their studies in the various branches of modern learning.

The Standing Committee for publications other than Kannada considers the question of publications other than Kannada.

Budget : Provident Fund

The employees of the University are subject to the State pension benefits.

A provident fund has been instituted for the benefit of the employees who are not in pensionable service.

The University is entirely supported by the Government of Mysore. The State Grant for the year 1953-54 is Rs. 46,00,000.

Women's Education

(Mysore women students in the Arts and Science Colleges are now charged half the rate of fees for tuition. Mysore women students in the Medical College and the Medical School are exempted from payment of tuition fee until the end of 1949-50).

There are two institutions exclusively for women, the Maharani's College in Bangalore and the Maharani's College in Mysore. Home Science and Music as optional subjects for the Intermediate and Degree courses have been introduced in the Maharani's College for women Balore and only music in the Maharani's College for women, Mysore.

Students information Bureau and its Activities

Till very recently the Registrar of the University continued to be the Secretary of the Students' Information Bureau. From July 1952, Sri M. E. Bharath Raj Singh, B.A. (Hons.), M.A. (Cantab) Assistant Professor of English, Maharaja's College Mysore, has been appointed as Officer-in-Charge of the Bureau.

The work of the Bureau consists mainly in collecting information about courses of study in foreign Universities and answering enquiries from students of this University as well as other Universities. The Bureau is also in charge of foreign students who come to study at the University of Mysore as well as those who visit it.

Provision for Safeguarding Health, Medical Inspection, Discipline, etc.

Every student in the University is medically examined in alternate years during his stay in the University. The examination is carried out by a Medical Officer who submits a report of the results of his inspection to the University. "Repeat" examinations in special cases are undertaken at intervals at the request of the College Authorities. The results of the medical examinations are reported in individual forms and kept in the custody of the Medical Officer and the Principal.

Degrees and Diplomas

The University offers the Bachelor's Degree in Arts and Science, the Honours Degree in Arts and Science, the Master's

Degree in Arts and Science, the B.E. Degree in Engineering (Civil, Mechanical, Electrical and Chemical), the M.B.B.S. Degree in Medicine and Surgery and the Degree of Bachelor of Teaching in Education. Sanction has been accorded to the Institutes of the following post-secondaries :—

Honorary Degrees of Doctor of Letters, Doctor of Science and Doctor of Laws (D.Litt., D.Sc., and LL.D.).—Where at a meeting of the Academic Council not less than eight members recommend that an Honorary Degree be conferred on any person on the ground that he is, in their opinion, by reason of eminent position and attainments, a fit and proper person to receive such a Degree, and where their recommendation is supported by the Council and accepted by not less than two-thirds of the members present at a meeting of the Senate and is confirmed by the Chancellor, the Senate shall confer the Honorary Degree on such a person, provided that in case of urgency the Chancellor may act on the recommendation of the Council only.

Admission

Students who have passed the Mysore S.S.L.C. examination satisfying the differential minima rules and those who have passed the Matriculation examination of an Indian University or other examination recognized by the University Council as equivalent thereto and satisfy the University Council regarding their fitness for admission are eligible for admission to the Intermediate course.

Admission to a course of study for a Bachelor's Degree in Arts or Science is granted only to those who have passed the Intermediate Examination of this University or of any other Indian University, subject in the latter case to the approval of the University Council in cases in which specific recognition has not been agreed to.

Admission to a course of study for the B.T. Degree is granted only to those who have taken the Bachelors' Degree in Arts, Commerce or Science in this or any other Indian University.

Admission to the course study for the B.E. Degree is granted only to those who have passed the Intermediate Examination in Science of this University or an examination of this or any other University accepted by the University Council as equivalent thereto or graduates in Arts or Science who have passed with Physics, Chemistry and Mathematics as optional subjects, or graduates with Honours having Mathematics and Physics for optional subjects.

Admission to the course of study for the M.B.B.S. Degree is granted only to those who have passed the pre-Medical examination of the University.

Admission to the pre-Medical course is granted only to those who have passed the Intermediate Examination in Science of this University with not fewer than two of the subjects Physics, Chemistry, Botany and Zoology or to graduates of this University who have passed with one or more of the above subjects or those possessing equivalent qualifications of other Universities accepted by the Council.

Provision has been made for the admission to the M.B.B.S. Degree course of L.M.P. Diploma holders. They will be eligible for admission to the Final examination in three years and a half after admission.

Admission to a course of study for the Master's Degree in Arts or Science is regulated as follows :—

A graduate of this University with Honours shall pursue a course of studies in his major subject for one academic year from the date of his passing the Bachelor's degree examination at the end of which he will be permitted to present himself for the Master's Degree Examination in that subject.

Candidates for the Mysore S.S.L.C. Examinations who have been declared eligible for college courses of study or those who have passed any other examination accepted by the University Council as equivalent thereto shall be eligible for admission to the L.M.P. diploma course.

Intermediate Examination

The course of study for the Intermediate Examination shall extend over two years.

At the Intermediate Examination in Arts, a candidate shall be examined in—

(1) *English*.—The examination shall comprise three papers on—

1. English Grammer. 2. Poetry and Drama, 3. Prose—
Detailed and Non-detailed,

- (2) *Second Language*.—One of the following languages :—
Kannada, Urdu, Tamil, Hindi, Telugu, Sanskrit,
Persian, Arabic, French, Latin, Malayalam,
German, Russian Italian and Spanish.

The examination shall comprise two papers as under :—

- (a) *Indian Languages*,
(b) *Classical and Western Languages*.

Note.—(a) *Indian Language*.—

Kannada, Tamil, Telugu, Hindi and Urdu.

(b) *Classical and Western Language* :—
Sanskrit, Persian, Arabic, French and Latin.

- (3) *Optional Subjects*.—Three of the following :—

A selected Language, History, Logic, Economics Statistics,
Geography, Mathematics, Physics, Chemistry, Biology,
Political Science, Ethics, Social Science, Music, Psychology.

Provided that—

- (i) A candidate taking Physics must take Mathematics ;
(ii) Not more than one of the last three subjects may be
offered ;
(iii) The same language cannot be taken under both (2)
and (3).

- (iv) Candidates taking Statistics must take Mathematics.

The selected language shall be taken from Old and Middle
Kannada, Modern Kannada, Tamil, Telugu, Urdu, Sanskrit,
Hindi, Arabic, Persian (Old and Modern).

“A student who has passed the S.S.L.C. Examination with
one of the Languages as an optional subject and does not desire
to continue it as an optional subject may be permitted to take it
as a Second Language.”

At the Intermediate Examination in Science, a candidate
shall be examined it—

- (1) *English*—same as for the Intermediate Examination in
Arts.
(2) *Second Language*.—One of the following Languages :—
Kannada, Urdu, Tamil, Telugu, Hindi, Sanskrit,

Persian, Arabic, French Latin, Malayalam, German, Russian, Italian and Spanish.

(3) *Optional Subjects*.—One of the following groups:—

- (i) Physics, Chemistry, Mathematics, (ii) Physics, Mathematics, Geology, (iii) Botany, Zoology, Chemistry. (iv) Geology, Chemistry, Botany. (v) Geology, Zoology, Chemistry. (vi) Botany, Zoology, Geology, (vii) Physics, Mathematics, Economics, (viii) Economics, Geology Chemistry. (ix) Economics, Geology, Geography. (x) Mathematics, Economics, Geography; (xi) Economics, Geography, Chemistry; (xii) Geology, Geography, Chemistry; (xiii) Mathematics, Statistics; Economics. (xiv) Mathematics, Statistics, Social Science; (xv) Mathematics, Statistics Psychology; (xvi) Mathematics, Statistics, Physics.

The examination shall comprise two papers in each division of the group.

(i) The Intermediate Examination in Arts and the Intermediate Examination in Science shall be held twice a year (in April and in September or October) in three parts—Part I, English, Part II, Second Language, and Part III, Optional subjects.

(ii) No candidate shall be declared to have passed the Intermediate Examination in Arts or the Intermediate Examination in Science unless he obtains not less than 35 per cent of the total number of marks in English, 35 per cent in the Second Language and 35 per cent in the whole group of optional subjects, and also not less than 30 per cent in each of the subject of the optional group.

The results of the examination shall be declared in three classes as follows:—1st class 60 ; 2nd class 50 ; 3rd class other successful candidates.

Degree Courses

The period of study necessary to qualify for graduation shall be as noted below, and shall be subsequent to the date at which the

student passes the Intermediate Examination of this University or an examination recognised as equivalent to it:—

B.A. and B.Sc....	...	Not less than 2 years
B.A. and B.Sc. (Hons.)	..	3 "
B.E. ... ..	..	4 years followed by a year's practical course.
M.B.B.S. ... ..	..	5½ years.

B.A. Degree

The course of study shall comprise English, a Second Language and three of the following subjects: English, Philosophy, a Classical Language, an Indian language, Politics, Economics, Sociology, History, Education, Mathematics, Geography, Biology, Physics, Chemistry, Botany, Zoology, Aesthetics, History of Civilization, Business Administration, Social Administration, Public Administration, which shall be taken in combinations approved by the Academic Council, from time to time.

Provided that not more than one of the last five subjects may be offered in any combination except when English is one of the optional subjects in the combination, in which case two may be offered.

The examination shall consist of two papers in English Composition, one paper in Second Language composition and Translation from English to Second Language or Translation in respect of classical Languages, and three papers in each of the three selected subjects.

The Second Language shall be selected from Kannada, Urdu, Tamil, Telugu, Hindi, French and Malayalam for Composition; and Persian, Arabic and Latin for Translation and Sanskrit for Texts and Translation. The Classical Language shall be selected from Old and Middle Kannada, Sanskrit, Pali and Prakrit, Persian (Classical), Arabic, Avestan and Pahlavi.

B.Sc. Degree

The course of study shall comprise English a Second Language and one of the following groups:—(i) Mathematics, Physics, Chemistry; (ii) Botany, Zoology, Geology; (iii) Botany, Zoology, Chemistry; (iv) Physics, Mathematics, Geology; (v) Chemistry, Geology, Botany; (vi) Chemistry,

Geology, Zoology ; (vii) General Physiology, Chemistry, Zoology or Botany ; (viii) Economics, Geology, Chemistry ; (ix) Physics, Mathematics, Economics ; (x) Experimental Psychology, Mathematical Statistics, Child Psychology and Educational Psychology ; (xi) 1. Mathematics. 2. Mathematical Statistics and Mathematical Economics. 3. One of the following :—(a) Economics, (b) Sociology, (c) Psychology, (General and Experimental) ; (xii) Economics, Geology, Geography ; (xiii) Mathematics, Economics, Geography ; (xiv) Geography, Economics, Chemistry ; (xv) Geography, Geology, Chemistry ; (xvi) Mathematics, Statistics, Geography ; (xvii) Mathematics, Sociology, Geography.

The examination shall consist of two papers in English Composition one paper in Second Language Composition and Translation from English to Second Language or Translation in respect of Classical Languages and three papers in each of the three selected subjects.

Bachelor's Degree Examinations in Arts and Science

The examinations for the Bachelor's Degree in Arts and Science shall be held in three parts as under :—

- (i) Compulsory English—pass 35 per cent.
- (ii) Second Language—pass 35 per cent.
- (iii) Optional Subjects—pass 35 per cent. in each subject and 40 per cent. of the aggregate of the three subjects.

The results in each part shall be declared in three classes as follows :—First Class 60 per cent, Second Class 50 per cent, Third Class other successful candidates.

B.A. Honours Degree

The course of study shall comprise English, a Second Language and one of the following as the major subject with a suitable minor subject :—

English, Kannada, Sanskrit, Persian, Arabic, Urdu, Philosophy, History, Politics, Economics, Indology.

The Examination shall consist of two papers in English Composition, one paper in Second Language Composition and Translation, eight papers in major subject and four papers in minor subject.

Provided that in the case of Sanskrit and English there shall be nine papers in the major subject and three papers in the minor subject.

B.Sc. Honours Degree

The course of study shall comprise one of the following optional groups of subjects consisting of a major subject and a minor subject, together with English and a Second Language :—

- (1) Mathematics (Major) with two out of a prescribed list of special subjects and Physics as Minor subject.
- (2) Statistics (Major) with two out of a prescribed list of special subjects and Economics or Experimental Psychology or Physics as Minor subject.
- (3) Physics (Major) including Mathematical Physics and Chemical Physics with Mathematics as Minor subject.
- (4) Chemistry (Major) including Plant Chemistry or Colloid and Capillary Chemistry with Physics as Minor subject.
- (5) Geology (Major) with Zoology or Botany or Chemistry as Minor subject.
- (6) Zoology (Major) with Botany or Geology or Chemistry as Minor subject.
- (7) Botany (Major) with Zoology or Geology or Chemistry as Minor subject.
- (8) Experimental Psychology (Major) with Child Psychology, Educational Psychology and Mathematical Statistics as Minor subject.
- (9) Economics (Major) with Advanced Statistics, Mathematical Economics and Social Measurements as Minor subject.

The examination shall consist of one paper in English Composition, one paper in Second Language Composition and Translation and papers in the optional subject as under :—

				Final (Major)	Preliminary (Minor)
(a)	Mathematics	9	} 3
	Statistics	...	...	9
	Physics	...	...	9
	Chemistry	...	...	9
	Botany	...	...	9
	Geology	...	...	9
	Zoology	...	...	9
(b)	Experimental	} 8	} 4
	Psychology	...	...
	Economics	...	...

No candidate shall be declared to have passed the Final Examination for the Honours degree in a Science subject, unless he obtains not less than 35 per cent. of the aggregate marks in each group and 40 per cent. of the total marks in the whole examination (including class work and class examination).

The results of the Final Examination shall be declared in three classes as follows:—

First Class	...	60 per cent.
Second Class	...	50 per cent.
Third Class	...	Other successful candidates.

Master's Degree

(a) **Master of Arts.**—A candidate for the degree of Master of Arts shall pursue a course of study in *one* of the following subjects:—

English, Kannada, Sanskrit, Persian, Urdu, History, Politics, Economics, Philosophy.

(b) **Master of Science.**—A candidate for the degree of Master of Science shall pursue a course of study in one of the following subjects:—

Mathematics, Statistics, Physics, Chemistry, Botany, Zoology, Geography, Psychology, Economics.

Candidates who have passed the Honours Degree Examination of this University and candidates from other Universities possessing qualifications considered equivalent by the University Council shall be eligible for admission to the Course.

A candidate who has passed the Honours Degree Examination or other equivalent examination shall pursue a course of studies in his major subject for not less than one academic year after passing the Bachelor's Degree examination at the end of which he will be permitted to present himself for the Master's Degree Examination in that subject.

The examination for the Master's Degree shall consist of four papers and a *viva voce* Examination.

A dissertation may be offered in place of one of the papers.

In the case of Experimental Science subjects a Practical Examination shall replace one of the papers.

B. T. Degree (From 1954, B. Ed.)

A candidate for the degree of Bachelor of Education shall have taken the Bachelor's Degree in Arts, Science or Commerce in this University or a corresponding degree of any other University accepted by the University Council as equivalent thereto, and have attended for a year the prescribed course of study in the University after having passed the B.A., B.Sc., or B.Com. Degree Examination.

The course of study for the degree of Bachelor of Education shall extend over one year at the conclusion of which there shall be an examination comprising the subjects mentioned below :—

Group A (*Theoretical*) (i) Principles. (ii) Educational Psychology, including Mental and Educational Measurements. (iii) General Methods and Methods of Teaching English (Compulsory). (iv) Methods of Teaching Special Subjects. (v) Comparative Study of Educational Systems, with special reference to problems of Indian Education. (vi) School Organisation and Management. (vii) Class Records in Mental and Educational Measurement. Group B (*Practice in Teaching*). Examination. Class work.

No candidate shall be declared to have passed the B.Ed. Degree Examination, unless he obtains not less than 40 per cent. of the total marks under A and B separately with a minimum of 30 per cent. in each subject of Group A. Of passed candidates, those that obtain 60 per cent. or more of the total marks shall be placed in the first class, others obtaining not less than 50 per cent. in the second class.

B.E. Degree

Students who have passed the Intermediate Examination in Science of this University with Physics, Chemistry and Mathematics as optional subjects shall be eligible for admission to the course of studies leading to the degree of Bachelor of Engineering.

Students who have passed the B.Sc. Degree Examination with Physics, Chemistry and Mathematics as optionals and those who have passed the B.Sc. Honours with Physics or Chemistry

or Mathematics as major subjects shall be eligible for admission to the course of studies leading to the Degree of Bachelor of Engineering.

B.Sc. Pass and B.Sc. Honours graduates so admitted to the First Year B.E. Class shall, at their option, be exempted from taking the following subjects in the First Examination in Engineering :—

Exemptions.

B.Sc. (Physics, Chemistry and Mathematics Optionals)	1. Physics Theory
	2. Physics Practical
	3. Chemistry Practical
	4. Algebra and Calculus
	5. Analytical Geometry and Trigonometry.
B.Sc. (Honours) Physics or Mathematics.	1. Physics Theory
	2. Physics Practical
	3. Algebra and Calculus
	4. Analytical Geometry and Trigonometry.
B.Sc. (Honours) Chemistry	1. Physics Theory
	2. Physics Practical
	3. Chemistry Practical

Graduates from other Universities with similar qualifications may also be given a corresponding exemption as detailed above.

Students availing themselves of the exemption shall not be classed and shall not be eligible for ranking.

Note.—Graduates not availing of the exemption will be governed by the Ordinance 110, for Pass, class and Rank.

Admission for students from other Universities with similar qualifications shall be subject to the approval of the University Council in each case.

Candidates for the B.E. Degree shall be required to attend courses of study in the following subjects :—

First Year

Common Course

(Civil, Mechanical, Electrical and Chemical Engineering)

1. Mathematics (Algebra, Trigonometry, Analytical

Geometry, Elements of Differential and Integral Calculus, Mensuration, Elements of Mechanics). 2. Engineering Physics—Theory and Practice. 3. Engineering Chemistry—Theory and Practice. 4. Economics. 5. Building Materials. 6. Metallurgy and Elementary Mechanical Engineering. 7. Freehand, Model and Geometrical Drawing. 8. Surveying—Theory and Practice. 9. *Workshop—Practice.*

Second Year

(i) *Civil Engineering*

1. Mathematics. 2. Applied Mechanics. 3. Hydraulics. 4. Mechanical Engineering. 5. Electrical Engineering. 6. Machine Drawing. 7. Geology—Theory and Practice. 8. Workshop—Theory and Practice. 9. Applied Mechanics Laboratory. 10. Mechanical Laboratory. 11. Electrical Laboratory. 12. Survey Practice.

(ii) *Mechanical Engineering*

1. Mathematics. 2. Applied Mechanics. 3. Hydraulics. 4. Civil Engineering. 5. Electrical Technology. 6. Machine Drawing. 7. Building Drawing. 8. Machine Design. 9. Applied Mechanics Laboratory. 10. Workshop—Theory and Practice. 11. Surveying—Theory and Practice.

(iii) *Electrical Engineering*

1. Mathematics. 2. Applied Mechanics. 3. Hydraulics. 4. Civil Engineering. 5. Electrical Technology. 6. Machine Drawing. 7. Building Drawing. 8. Machine Design. 9. Applied Mechanics Laboratory. 10. Workshop—Theory and Practice. 11. Surveying—Theory and Practice.

(iv) *Chemical Engineering*

1. Mathematics. Same as for Civil, Mechanical and Electrical. 2. Applied Mechanics. Same as for Civil, Mechanical and Electrical. 3. Hydraulics. Same as for Civil, Mechanical and Electrical. 4. Theory and Design of Machine Parts as for Mechanical and Electrical. 5. Civil Engineering as for Mechanical and Electrical. 6. Electrical Technology as for Mechanical and Electrical. 7. Machine Drawing. 8. Workshop and Laboratory.

Third Year*(i) Civil Engineering*

1. Mathematics. 2. Applied Mechanics and Graphic Statics.
3. Building Construction. 4. Architecture. 5. Building Drawing and Estimating. 6. Irrigation. 7. Sanitary Engineering.
8. Surveying—Theory and Practice.

(ii) Mechanical Engineering

1. Mathematics. 2. Applied Mechanics and Graphic Statics.
3. Theory of Direct Current Machinery. 4. Heat Engines.
5. Workshop Theory. 6. Machine Design. 7. Machine Drawing.
8. Workshop Practice. 9. Mechanical Laboratory. 10. Electrical Laboratory and Drawing.

(iii) Electrical Engineering

1. Mathematics. 2. Applied Mechanics and Graphic Statics.
3. Heat Engines. 4. Theory of Direct Current Machinery.
5. Hydraulic Machinery. 6. Machine Design. 7. Electrical Drawing. 8. Workshop—Theory and Practice. 9. Mechanical Laboratory. 10. Electrical Laboratory.

(iv) Chemical Engineering

1. Applied Mechanics, Graphic Statics. Same as for Civil, Mechanical and Electrical. 2. Applied Thermodynamics. 3. D. C. Machines, as for Mechanical and Electrical. 4. Machine Drawing. 5. Advanced Chemistry. 6. Organic Chemistry. 7. Electrical Laboratory. 8. Mechanical Laboratory. 9. Chemical Laboratory.

Fourth Year*(i) Civil Engineering*

1. Irrigation and Irrigation Drawing. 2. Railways, Tunnels and Harbours. 3. Roads and Bridges, and Bridge Drawing.
4. Water Supply and Sanitary Engineering. 5. Structural Design and Drawing. 6. Testing of Materials Laboratory. 7. Hydraulics Laboratory. 8. Estimating, Specification and Engineering Economics. 9. Surveying—Theory and Practice.

(ii) Mechanical Engineering

1. Heat Engines. 2. Hydraulic Engineering. 3. Power

Plant Engineering and Drawing. 4. Mechanical Laboratory. 5. Workshop Practice. 6. Theory and Design of Machines. 7. Estimating, Specification and Engineering Economics. 8. Machine Drawing. 9. Theory of Alternating Current Machinery. 10. Electrical Laboratory. 11. Structural Design.

(ii) *Electrical Engineering*

1. Theory of Alternating Current Machinery. 2. Generation and Hydro-Electric Engineering. 3. Transmission and Distribution. 4. Electrical Machine Design. 5. Estimation, Specifications and Engineering Economics. 6. Traction and (Utilisation) Communication. 7. Structural Design. 8. Mechanical Laboratory. 9. Electrical Laboratory. 10. Electrical Drawing.

(iv) *Chemical Engineering*

1. Hydraulic Machinery as for Mechanical, with special reference to pumping plant. 2. Structural Design. Same as for Mechanical and Electrical. 3. Mechanical Laboratory. 4. Applied Organic Chemistry. 5. Chemical Engineering. 6. Chemical Engineering Laboratory. 7. Construction and Design of Chemical Plants. 8. Economics of Chemical Industry. 9. Treatment of materials, grinding, evaporation, etc.

Candidates shall be required to pass four examinations, viz., the First Examination in Engineering at the end of the first year, the Second Examination in Engineering at the end of the second year, the Third Examination in Engineering at the end of the third year and the Final Examination for the B.E. Degree at the end of the fourth year.

No candidate shall be permitted to appear for the First Examination in Engineering after having failed four times in the examination.

No Candidate shall be declared to have passed in any of the above examinations unless he obtains marks as follows:—

- (a) 50 per cent in each subject of the sessional work.
- (b) 35 per cent in each paper of the written examination.
- (c) 35 per cent in oral and practical.
- (d) 40 per cent in the aggregate.

Successful candidates who obtain not less than 60 per cent of the total marks shall be placed in the first class and their

names shall be published in order of merit; the names of the other successful candidates shall be published in alphabetical order in the second class.

A candidate for any of the examinations failing to obtain the prescribed minimum in only one paper or Practical Examination, but obtains 40 per cent. in the aggregate may be permitted to appear again for the examination in that paper or Practical Examination only and that he be declared to have passed in the Examinations provided he obtains not less than 35 per cent. of the marks in that paper or practical Examination at the subsequent appearance.

A candidate for the First, Second and Third Examination in Engineering who fails in any one paper (Theory or Practical) but secures 40 per cent. on the aggregate, may be permitted to the next higher class and take the examination in the paper (Theory or Practical) in which he failed.

Such candidates will be declared to have passed in the previous examination, if they secure the required minimum of 35 per cent. in this paper (Theory or Practical) at their subsequent appearance.

The results of such candidates in the second, Third or Final year Examination shall not be declared unless they pass in the paper left over from the previous year.

A candidate who has passed the Final Examination for the B.E. Degree in the Mechanical or Electrical Engineering branch may be permitted to qualify for the degree also in the Electrical or Mechanical Engineering branch, as the case may be, by attending the course of lectures for a period of not less than one academical year and passing an examination in the subjects studied as specified hereunder:—

(i) Mechanical Engineering students qualifying for an additional degree in Electrical Engineering shall undergo a course of studies in the subjects comprised in items 7 and 10 of the III Year Electrical Engineering course and items 2 to 6, 9 and 10 of the IV Year Electrical Engineering course and take the papers comprised in item 8 of the Third Examination in Engineering (Electrical) and Groups I and II of the Final Examination in Engineering (Electrical) except item 6,

(ii) Electrical Engineering students qualifying for an additional degree in Mechanical Engineering shall undergo a course of studies in the subjects comprised in items 4 and 5 of the III Year Mechanical Engineering course and items 1 to 8 of the IV year Mechanical Engineering course and take the papers comprised in items 6 and 7 of the Third Examination in Engineering (Mechanical), and Groups I and II of the Final Examination in Engineering (Mechanical).

Master of Engineering

A candidate for the degree of Master of Engineering shall have qualified for the degree of Bachelor of Engineering. He shall be permitted to present himself for the Master's Degree in Engineering provided that he has enrolled himself as a student of the College of Engineering for one academical year and worked as directed by the Professor in charge of the subject concerned.

The examination for the degree of Master of Engineering shall comprise a thesis and a *viva voce* examination. The thesis shall carry a maximum of 400 marks, and the *viva voce* a maximum of 100.

No candidate shall be declared to have passed the M. E. Degree Examination unless he obtains not less than 40 per cent. of the marks in the thesis, 40 per cent. of the marks in the *viva voce*, and 50 per cent. of the aggregate marks for the whole marks shall be placed in the First Class.

The Pre-Medical Course

Before proceeding to the course of studies leading to the degree of Bachelor of Medicine and Bachelor of Surgery, a student shall be required to complete successfully the Pre-Medical course which shall extend over a period of six months and comprise the following subjects of study:—

Physics, Chemistry, Botany and Zoology.

Students who have passed the Intermediate Examination of this University with not fewer than two of the subjects comprised in the above course shall be eligible for admission to the course. Such of these as may have passed in Part III of the Bachelor's Degree Examination of this University with one or more of the

subject comprised in the course shall be exempted from study and examination in the subject or subjects in which they have already passed the degree examination.

Admission of students from other Universities with similar qualifications shall be subject to the approval of the University Council in each case.

Candidates who hold the L.M.P. Diploma of Mysore or a qualification considered equivalent thereto shall also be eligible for admission to the course not later than two years after passing the Final L.M.P. Diploma Examination.

There shall be a Pre-Medical Examination at the end of the course. The examination shall comprise a written paper, a practical examination and a *viva voce* examination in each subject of study.

The examination shall be held twice a year, *viz.*, in December and in May.

Candidates for the examination shall be required to produce certificates of (i) having undergone the prescribed course of study for six months in the Medical College in the subjects in which they appear, (ii) being not less than 17 years of age on the 1st January following the examination.

No candidate shall be permitted to appear for the Pre-Medical Examination after having failed four times in the examination..

No candidate shall be declared to have passed the examination unless the obtains in each subject not less than 35 per cent. of the marks in the written examination and 35 per cent. of the marks in the practical and the *viva voce* examination taken together and 50 per cent. of the aggregate marks in the examination.

Successful candidates who obtain not less than 60 per cent. of the maximum marks shall be placed in the first class.

M.B., B.S. Degree

The course of studies leading to the degree of Bachelor of Medicine and Bachelor of Surgery shall extend over five years.

(i) Candidates who have passed the Pre-Medical Examination

of this University or who possess similar qualifications of other Universities which are accepted by the University-Council as sufficient for this purpose, shall be eligible for admission to the course.

(ii) A candidate for admission must be not less than 17 years of age on the 1st January of the calendar year for admission.

Candidates for the degree shall be required to attend courses of study in the following subjects:—

First Year and Second Year

Anatomy (including Embryology). Physiology (including Practical Physiology and Bio-Chemistry). Organic Chemistry.

Third Year

Pathology and Bacteriology (including Immunology). Minor Surgery. Materia Medica and Pharmacology. Medicine. Surgery. Hospital and Clinical Work.

Fourth Year

Medicine. Surgery and Surgical Pathology. Venereal Diseases. Midwifery. Gynaecology and Paediatrics. Ophthalmology. Forensic Medicine. Pathology and Bacteriology (including Immunology). Hygiene, Hospital and Clinical Work.

Fifth Year

Operative Surgery. Midwifery, Gynaecology and Paediatrics, Mental Diseases. Hospital and Clinical Work. Vaccination. Fever Hospital Clinical and Dental Surgery. Anaesthetics. Oto-Laryngology. One course of lectures and demonstration.

Provided that in respect of candidates who have passed the Final Examination for the L.M.P. Diploma, the course shall extend over three years and shall comprise the following.

Candidates shall be required to pass three examinations, namely, the First Examination at the end of the second year of the course, the Second Examination comprising three parts—Part I to be taken at the end of the third year, Part II to be

taken at the end of the fourth year and Part III at the end of the fourth year or at any subsequent examination, and the final examination at the end of the fifth year, it being permissible for a candidate failing in Part I at the end of the third year to proceed to the fourth year course and appear in Part I again at the end of the fourth year.

A candidate who has already passed the Final Examination for the L.M.P. Diploma shall be permitted to appear for (a) the First M.B., B.S. Examination on production of a certificate of having passed the Pre-Medical Examination and a certificate of having undergone an approved course of studies of one academical year; (b) the Second M.B., B.S. Examination at the end of one academical year after passing the First M.B., B.S. Examination, and (c) the Final Examination at the end of a course of one academical year after passing the Second M.B., B.S. Examination.

No candidate shall be permitted to appear for the First Examination after having failed three times in the examination. The Final Examination and Part III of the Second Examination shall be held twice a year in December and in June, respectively.

(a) Candidates for the First Examination shall be required to have passed the Pre-Medical Examination and have undergone an approved course of studies in the Medical College for a period of not less than two years in Anatomy, Physiology and Organic Chemistry; and shall be examined in the following subjects—

- (i) Anatomy (including Embryology). (ii) Physiology (including Practical Physiology and Bio-Chemistry).
- (iii) Organic Chemistry.

(b) No candidate shall be declared to have passed the examination, unless he obtains not less than 50 per cent of the marks in the written examination and 50 per cent in the practical and oral examination together in Anatomy and in Physiology, and 35 per cent. in the written examination and 35 per cent. in the practical and oral examination together in Organic Chemistry and 50 per cent in the total for that subject. Successful candidates who obtain 70 per cent of the total number of marks shall be placed in the First Class. Candidates for the Second Examination shall be required to have passed the First M.B., B.S. Examination and have been engaged in medical studies in the

Medical College subsequent to passing the First M.B.,B.S. Examination as under :—Pharmacology—1 year, Pathology including Bacteriology—2 years, Hygiene—1 year, Ophthalmology—1 year, Forensic Medicine—1 year, the period being one year in respect of each subject in the case of L.M.P. Diploma holders ;

(c) The Second Examination shall be held in three parts :—

Part I—at the end of the third year comprising Pharmacology. Pass 50 per cent. ; 1st Class 70 per cent.

Part II—at the end of the fourth year comprising Pathology including Bacteriology and Hygiene : Pass 50 per cent. ; 1st Class 70 per cent.

Part III—at the end of the fourth year comprising Ophthalmology and Forensic Medicine. Pass 50 per cent. ; 1st Class 70 per cent.

Candidates for the Final Examination shall be required to (i) have passed Parts I and II of the Second M.B., B.S. Examination; (ii) have been engaged in medical studies in the Medical College in the subjects of the examination for a period of not less than three years after passing the First M.B.,B.S. Examination and not less than one year after passing Parts I and II of the Second M.B.,B.S. Examination, and in the case of those who have passed the L.M.P. Diploma Examination for not less than one year after passing the Second M.B., B.S. Examination ; (iii) and

(b) Candidates shall be examined in the following subjects :—
(i) Medicine including Therapeutics and Paediatrics ; (ii) Surgery including Venereal Diseases ; (iii) Obstetrics and Gynaecology.

(c) No candidate shall be declared to have passed the Final Examination unless he obtains not less than 50 per cent. of the maximum marks in the written examination and not less than 50 per cent of the maximum marks in the clinical, practical and *viva voce* examinations taken together, in each subject. Successful candidates who obtain not less than 70 per cent of the total marks in the examination shall be placed in the First Class.

The Doctorate Degree

(i) A candidate may present himself for a Doctorate Degree under the following conditions:—

Doctor of Letters (D.Litt.)—

A Bachelor of Arts Honours of the University, five years after qualifying for the B.A. Honours Degree.

A Master of Arts of the University, four years after qualifying for the M.A. Degree.

Doctor of Science (D.Sc.)—

A Bachelor of Science Honours of the University, five years after qualifying for the B.Sc. Honours Degree.

A Master of Science of the University, four years after qualifying for the M.Sc. Degree.

Doctor of Engineering (D.E.)—

A Bachelor of Engineering of the University, five years after qualifying for the B.E. Degree.

A Master of Engineering of the University, four years after qualifying for the M.E. Degree.

Doctor of Science (D.Sc.)—Anatomy, Physiology—

An M.B., B.S. of the University, five years after qualifying for the M.B., B.S. Degree.

(ii) The degree may be conferred either on the basis of published papers or on a thesis specifically prepared for the degree in conjunction with published papers.

Ph.D. Degree

Doctor of Philosophy (Ph.D.)—

A Master of Arts or Master of Science of this or any other recognised University in India two years after qualifying for the Master's Degree.

A Bachelor of Arts or Bachelor of Science of this or any other recognised University in India, three years after qualifying for the B. A. Hons. or B.Sc. Hons.

A Master of Arts or B.Sc. Hons. graduate of this University may be permitted to work and prepare his thesis under recognised direction in any institution or laboratory in or outside Mysore.

A Master of Arts or B.Sc. Hons. graduate of any other recognised University is permitted to appear for the Ph.D. Degree of this University provided that he agrees to work within under the jurisdiction of the University of Mysore.

The Degree may be conferred on a thesis specifically prepared for the purpose and shall embody the results of research or investigation carried out by the candidate in a institution and under the guidance of a person approved in either case by the University.

APPENDIX 'A'

INTERMEDIATE EXAMINATION IN COMMERCE

The course of study for the Intermediate Examination in Commerce extends over two years. It is open to candidates who have passed the Mysore S.S.L.C. Examination or any other equivalent examination with one of the following subjects and shall have been declared eligible for admission to University courses of study.

S.S.L.C. of Mysore	...	...	Group 'C' (V)
S.S.L.C. of Mysore	...	...	Group 'A' or 'B'

Candidates for the Intermediate in Commerce examination shall be examined in three parts.

Part I.—English: The examination shall comprise three papers on—

- (1) English Grammar, (2) Poetry and Drama, (3) Prose—Detailed and non-detailed.

Part II.—comprises four papers on—

- (1) Economics I: Modern Industry
- (2) Economics II: Rural Economics
- (3) Economic Geography
- (4) Hindi.

Part III.—comprises four papers on—

- (1) Accountancy and Commercial Arithmetic I
- (2) Accountancy and Commercial Arithmetic II
- (3) Administration
- (4) Commerce.

No candidates shall be declared to have passed the Intermediate examination in Commerce unless he obtains not less than 35 per cent of the total marks in English 30 per cent. in each of the subjects included in Parts II and III and 35 per cent of the aggregate in Parts II and III.

BACHELOR'S DEGREE EXAMINATION IN COMMERCE

The course of studies leading to the Degree of Bachelor of Commerce shall extend over two years.

(i) The candidates who have passed the I.Com. examination of the Mysore University or any other Universities recognised as equivalent thereto and (ii) Graduates in Arts or Science of this University or any other Universities recognised by this and who have passed the Degree Examination with Economics as one of the optional subjects shall be eligible for admission but in the latter case they are required to pass the I.Com. examination in Accountancy and Commercial Arithmetic I and II at the end of the First Year. Candidates for the B.Com. Degree examination shall be examined in three Parts.

Part I—comprises four papers on—

- (1) English, (2) Commercial Law, (3) Trade and Statistics, (4) Business Organisation.

Part II—comprises three papers on—

- (1) Modern Economic Development, (2) Organisation and Finance of Industry, (3) Banking and Money Market.

Part III—comprises ten papers on each subject having two papers:

- (1) Advanced Accountancy and Auditing, (2) Advanced Banking and Banking Law, (3) Insurance, (4) Public Administration, (5) Economics of Transport.

No candidate shall be declared to have passed the B.Com. Degree examination unless he obtains not less than 35 per cent of the total marks in each subject comprised in the Part and 40 per cent of the aggregate of the subjects included in each Part.

B.Sc. (AGRICULTURE) DEGREE

The course of studies leading to the Degree of Bachelor of Science in Agriculture shall extend over three years.

Candidates who have passed the Intermediate examination of the Mysore University with Chemistry as one of the optional subjects shall be eligible for admission and students from other Universities with similar qualifications shall also be eligible for admission subject to the approval of the University Council. A candidate for admission must not be less than eighteen years of age on the first January of the calendar year of admission.

Candidates for the B.Sc. (Agri.) Degree shall be required to attend courses of studies in the following subjects :—

First Year

1. Agriculture—including Geology and Climatology
2. Veterinary Science
3. Engineering (including Drawing and Surveying)
4. Botany
5. Zoology and
6. Inorganic Chemistry and Principles of Organic Chemistry in a general manner.

There shall be one course of lectures with practical work in each of the above subjects.

Second Year

1. Agriculture
2. Veterinary Science
3. Agricultural Chemistry
4. Agricultural Botany
5. Agricultural Zoology and
6. Agricultural Engineering.

There shall be one course of lectures with practical work in each of the above subjects.

Third Year

1. Agriculture—inclusive of Animal Husbandry and Dairying, Economics and Farm Management.
2. Agricultural Chemistry.
3. Agricultural Botany and Mycology.

There shall be one course of lectures with practical work in each of the above subjects.

Candidates shall be required to pass three examinations, *viz.*, First Examination in the B.Sc. (Agri.) at the end of the First Year, the Second examination in the B.Sc. (Agri.) at the end of the second year and the Third and Final examination at the end of the Third Year of the course.

No candidate shall be declared to have passed, unless he obtains not less than 40 per cent of the aggregate marks in each of the subjects. Successful candidates who obtain not less than 60 per cent. of the total marks shall be placed in the First Class in the order of merit and the other successful candidates in the Second Class in the alphabetical order.

B.Sc. (TEXTILES) DEGREE

The course of study leading to the Degree of Bachelor of Science in Textiles shall extend over three years with six months practical training in an approved Textile Mill or Factory.

Candidates who have passed (i) the Intermediate Examination in Science of this University with Physics, Chemistry and Mathematics as optional subjects ; (ii) the B.Sc. Degree examination with Physics, Chemistry and Mathematics as optional subjects and (iii) the B.Sc. (Hons.) Degree examination with Mathematics, Physics or Chemistry as the major subject shall be eligible for admission provided in the latter case candidates shall have taken Mathematics as an optional subject in the Intermediate course. Students from other Universities with similar qualifications shall also be eligible for admission subject to the approval of the University Council.

Candidates for the B.Sc. (Textiles) Degrees shall be required to attend the courses of study in the following subjects :—

First Year

- (1) Mathematics
- (2) Physics
- (3) Physics Practical
- (4) Chemistry
- (5) Chemistry Practical
- (6) Descriptive Engineering
- (7) Machine Drawing
- (8) Workshop Practice
- (9) Textile Technology
- (10) Preparatory Process to Weaving.

Second Year

- (1) Mechanics of Textile Machinery
- (2) Drawing and Colour
- (3) Textile Technology
- (4) Weaving Mechanism
- (5) Preparatory Process to Weaving
- (6) Fabric Structure
- (7) Textile Testing
- (8) Commercial Subjects
- (9) Textile Chemistry
- (10) Dyeing Laboratory
- (11) Weaving Laboratory.

Third Year

- (1) Textile Technology
- (2) Commercial Subjects
- (3) Factory Organisation
- (4) Textile Testing Laboratory
- (5) Weaving Mechanism
- (6) Design and Ornaments
- (7) Applied Design
- (8) Fabric Structure
- (9) Preparatory Process to Weaving.
- (10) Textile Chemistry
- (11) Dyeing and Printing Laboratories
- (12) Hosiery Manufacture
- (13) Hosiery Laboratory
- (14) Weaving Laboratory (workshop)

Candidates shall be required to pass three examinations, viz., First examination in the B.Sc. (Textiles) at the end of the first year, Second examination in the B.Sc. (Textiles) at the end of the year and the third and final examination in the B.Sc. (Textiles) at the end of the third year.

No candidate shall be declared to have passed any of the above examinations unless he obtains not less than 30 per cent. of the marks in each of the written examination and 30 per cent. of the marks in each oral or practical examination and 50 per cent. of the total marks in the examination. Successful candidates who obtain not less than 70 per cent. of the total marks shall be placed in the first class in order of merit and the other successful candidates in the Second Class,

B.L. Degree

The course of study leading to the Degree of Bachelor of Laws shall extend over two years and consists of two parts.

Part I—First Examination in Law and *Part II* Bachelor of Laws Degree examination.

Candidates who have qualified for the Degree of Bachelor of Arts or Bachelor of Science or Bachelor of Commerce or Bachelor of Agriculture of this University or a Degree of some other University accepted by the University Council as equivalent there-to shall be eligible for admission.

Candidates for the Degree of Bachelor of Laws shall be examined in the following subjects:—

First Examination in Law—

1. Jurisprudence
2. Roman Law
3. Contracts—
 - (a) General principles of the Law of Contracts including the Law of Agency and Specific Relief.
 - (b) The Law of Contracts including sale of goods, partnership Bailment, Suretyship and Negotiable Instruments.
4. Torts.
5. Criminal Law and Criminal Procedure Code (General provisions only.)

B.L. Degree Examination.

1. Law of Property:
 - (a) Transfer of Property Act—Sections 1—53 A (with a comparative study of the general principles of English Law of Real Property) Trusts Act and Easements Act.
 - (b) Transfer of Property Act—Sections 54—137 and Mysore Land Revenue Code.
2. Hindu Law.
3. Muhammadan Law and Indian Succession Act.
4. Constitutional Law—Indian and English.
5. Law of evidence, Civil Procedure Code and Limitation Act (General Provision only)
6. Public International Law, (Law of Peace including the Constitution of the United Nations.)

No candidate shall be declared to have passed in the First Examination in Law or the B.L. Degree Examination unless he obtains not less than 40 per cent. of the total marks, and not less than one-third of the marks in each Division of the examination.

DIPLOMA COURSES

Diploma in Medical Practice

The course of studies for the Diploma of Licensed Medical Practitioner shall extend over four years.

(a) Candidates who have passed the Mysore Secondary School Leaving Certificate Examination and been declared eligible for college courses of study or who have passed any other examination accepted by the University Council as sufficient for this purpose, shall be eligible for admission.

(b) Candidates for admission should be not less than 16 years of age on the first July, of the year of admission.

(c) Such of the candidates for any of the M.B., B.S. Degree Examinations of this University as secure not less than 40 per cent of the aggregate marks in each subject comprised in the examination may be admitted to the corresponding higher class of the L.M.P. Diploma Course the correspondence being as follows:—

First Examination for M.B., B.S. ...	Third L.M.P. Class.
Second Examination for M.B., B.S. ...	Final L.M.P. Class.

Candidates for the Diploma of Licensed Medical Practitioner shall be required to attend the following courses of study:—

First Year

Physics. Chemistry. Elements of Biology. Anatomy.
Physiology.

Second Year

Anatomy. Physiology.

Third Year

Medicine. Surgery. Pathology and Bacteriology. Hygiene.
Materia Medica. Mental Diseases. Hospital Work.

Fourth Year

Medicine. Surgery. Venereal Diseases. Operative Surgery.
Throat, Nose and Ear Diseases. Midwifery. Dis-
eases of Women and Children. Ophthalmology.
Forensic Medicine. Hospital Work.

Candidates shall be required to pass four examinations, *viz.*, the first, the second, the third and the final. These examinations shall be held twice a year in April and in October.

No candidate shall be permitted to appear for the First Examination for the L.M.P. Diploma after having failed four times in the examination.

No candidate shall be declared to have passed in any of the above examinations unless he obtains not less than 40 per cent. of the marks in each subject. Of those who pass those who obtain not less than 70 per cent. of the total marks shall be placed in the First Class.

APPENDIX 'B'*II. Language Diploma—in French, German, Hindi, Persian or Urdu*

The course of study for language Diplomas shall extend over two years, at the end of which there shall be an examination. Candidates who have passed the Mysore S.S.L.C. examination and been declared eligible for College courses of study or the Matriculation examination of a Indian University or any other examination recognised by this University as equivalent thereto shall be eligible for admission.

The examination shall comprise two papers on

- (i) Text Books and Grammar
- (ii) Composition and Translation and *Viva Voce*.

III. Post-Graduate Diploma Course in Indology

The course of study in Post-Graduate Diploma Course in Indology shall extend over one year at the end of which there shall be an examination. Only graduates are eligible for admission to the course. The examination shall comprise five papers on

- (i) History of Civilisation (Eastern and Western)

- (ii) Outlines of the Cultural History of Ancient India
- (iii) Outlines of Indian Literature
- (iv) Indian Art and Architecture
- (v) Religion and Philosophy of India.

No candidate shall be declared to have passed the Diploma examination unless he obtains not less than 50 per cent. of the total marks for the examination, and those securing not less than 70 per cent. shall be placed in the first class in the order of their marks.

Fees

The scale of fees for the courses of study for the several examinations of the University shall be as follows:—

A. Professional Courses—

Pre-Medical Courses:

	Rs.	
Whole course...	72	for the course.
One subject	25	"
Two subjects	45	"
Three subjects	60	"
M.B., B.S. Degree, whole ...	200	a year (payable in eight equal instalments.)
M.B., B.S. Degree, for a six months' course for the Final M.B., B.S. examination in respect of a failed candidate.	100	(payable in two equal instalments, in January and March).
Fee for a supplementary course ...	30	for each subject.
Fee for L.M.P. Diploma holders admitted to the M.B., B.S. Degree ...	100	per year.
Diploma course	60	"
L.M.P. (for a course extending for six months or less)	30	"
B.E. Degree, whole course	150	per year.
Lectures only for students repeating the course	45	"
Lectures and drawing for students repeating the course	60	"
B.T. Degree	80	"

Scale of Tuition fees continued :

						Rs. Per year
B.Com. Degree	...	...	...	...	...	96
B.Sc. (Agri.) Degree	...	...	...	...	...	120
B.Sc. (Textiles) Degree	...	...	...	...	...	150
B.L. Degree	...	...	...	...	...	90

B. Arts, Science and Commerce Courses—

Intermediate Arts whole	72
-------------------------	-----	-----	-----	-----	-----	----

(Plus Rs. 8 for Science Subjects)—

Part I...	...	...	...	...	...	24
Part II	...	...	...	...	...	12
Part III	...	...	...	...	...	44

*(Plus Rs. 8 for Science Subjects)—**Intermediate Science—*

Whole...	...	...	...	...	...	88
Part I...	...	...	...	...	...	24
Part II	...	...	...	...	...	12
Part III	...	...	...	...	...	60

For Failed I.Sc. candidates who are admitted
for Lectures only

Whole course	...	...	...	...	...	72
Part I...	...	...	...	...	...	24
Part II	...	...	...	...	...	12
Part III	...	...	...	...	...	44

Intermediate in Commerce

Whole...	...	...	...	...	...	72
Part I...	...	...	...	...	...	24
Part II	...	...	...	...	...	28
Part III	...	...	...	...	...	28

*B.A. Degree
whole ...*

...	96
-----	-----	-----	-----	-----	-----	----

(Plus Rs. 12 for Science subjects)

English	...	...	...	...	...	30
Second Language	...	...	...	...	...	20
Optionals	...	...	...	...	...	55

(Plus Rs. 12 for Science subjects)

B.A. (Hons.) Degree

Whole ...	...	...	...	...	120
English ...	...	...	...	...	30
Second Language ...	...	...	...	...	20
Minor Subjects ...	...	...	...	...	40
Major Subjects ...	...	...	...	...	60

(In the 1st and 2nd year class)

B.Sc. Degree

Whole ...	...	...	...	...	120
English ...	...	...	...	...	30
Second Language ...	...	...	...	...	20
Optionals ...	...	...	...	...	80

B.Sc. (Hons.) Degree

Whole ...	...	...	...	...	144
English ...	...	...	...	...	30
Second Language ...	...	...	...	...	20
Minor Subjects ...	...	...	...	...	50
Major Subjects ...	...	...	...	...	70

(In the 1st and 2nd year class)

M.A. Degree...	...	...	...	...	120
M.Sc. Degree	...	...	...	...	144

Ph.D. Degree

(a) Fee for Arts Subjects	...	...	...	80
(b) Fee for Science Subjects	...	...	...	120

(c) A student working the other Universities or Institutions shall pay a Registration fee of

Institutions shall pay a Registration fee of 50

Diploma course in a Language ... 40

Post-graduate Diploma in Indology ... 120

The scale of fees for admission to the several examinations of the University shall be as follows:—

(1) Intermediate Arts or Science:—

Whole...	...	...	...	30
Part I...	...	...	...	10
Part II	...	...	...	5
Part III	...	...	...	20

				Rs.
(2)	(a)	B.A. Degree, whole (plus Rs. 5 for Science subjects)	...	40
	(b)	Compulsory English	...	10
	(c)	Compulsory Second Language	...	6
	(d)	Optional Subjects (plus Rs. 5 for Science subjects)	...	30
(3)	(a)	B.A. (Hons.) Preliminary, whole (plus Rs. 5 for Science subjects)	20	
		English	...	10
		Second Language	...	6
		Optional Subjects (Minor (plus Rs. 5 for a minor group including a Science subject)	...	10
	(b)	B.A. (Hons) Degree, Final (plus Rs. 10 for Science subjects)	...	40
(4)	(a)	B.Sc. Degree, whole	...	50
	(b)	Compulsory English	...	10
	(c)	Compulsory Second Language	...	6
	(d)	Optional Subjects	...	40
(5)	(a)	B.Sc. (Hons.) Preliminary	...	25
		English	...	10
		Second Language	...	6
		Optional Subject (Minor)	...	15
	(b)	B.Sc. (Hons.) Degree, Final	...	50
(6)		M.A. Degree	...	100
		M.Sc. Degree	...	100
		M.E. Degree	...	100
(7)		B. T. Degree, whole	...	35
		Group B. Practice in Teaching only	...	15
		Group A (Theory only)	...	25
(8)		Pre-Medical Examination :—		
		Whole examination	...	30
		One subject only	...	10
		Two subjects only	...	18
		Three subjects only	...	25
(9)		I. M.B.,B.S., whole	...	35
		One subject	...	15
		Two subjects	...	25

					Rs.
II.	M.B.,B.S., Part I, one subject only				15
	Part II, whole	...	...	...	25
	One subject only	...	...	...	15
	Part III, whole	...	...	...	25
	One subject, only	...	...	...	15
	Final M.B.,B.S., whole	...	...	...	45
	One subject	...	...	...	20
	Two subjects	...	...	...	35
(10)	(a) First Examination in Engineering :—				
	Whole	...	...	...	20
	One subject...	...	...	...	10
	(b) Second Examination in Engineering :—				
	Whole	...	...	...	20
	One subject	...	...	...	10
	(c) Third Examination in Engineering :—				
	Whole	...	...	...	20
	One subject	...	...	...	10
	(d) Final Examination for the B.E. Degree :—				
	Whole	...	...	...	Rs. 45
	One subject	...	...	...	15
(11)	D.Litt., D.Sc., or D.E.	...	...	...	200
(12)	Post-Secondary Diploma courses—				
	Preliminary Examination or any intermediary examination	...	...	...	15
	Final Examination	...	...	...	20
	Fee for one subject in respect of the Diploma in Engineering	...	...	...	5
(13)	Ph.D. Degree				150
(14)	Intermediate in Commerce.....				
	Whole				
	Part I				30
	Part II	...	...	...	10
	Part III	...	...	...	12
		...	...	...	12
(15)	B. Com. Degree Examination	...	...	...	40

- (16) (a) First Examination in B.Sc.
 Agricultural 20
 (b) Second Examination in B.Sc.
 Agriculture, whole 20
 Ordinance subject 10
 (c) Final Examination in B.Sc.
 Agriculture 30
 Ordinance subject 10
- (17) (a) First Examination in Law,
 whole 40
 Per Subject 10 (Subject to the
 Maximum of
 Rs. 40).
 (b) B. A. Degree—
 Whole 50
 Per Subject 10 (Subject to the
 maximum of
 Rs. 50.)
- (18) (a) First Examination for B.Sc. Textiles
 Whole 20
 One Subject 10
 (b) Second Examination for B.Sc. Textiles
 Whole 20
 One Subject 10
 (c) Final Examination for B.Sc. Textile
 Whole 45
 One Subject 15
- (19) Diploma course in a language 20
- (20) Post-graduate Diploma course in
 Indology 40

NAGPUR UNIVERSITY

Introductory : Character of the University

The first attempt to establish a University for the Central Provinces and Berar was made in the year 1914, when in the month of July, the Local Government appointed "The Central Provinces and Berar University Committee" to consider the question of the establishment of an independent University. It made its report in January 1915 embodying an elaborate scheme for a residential University with, however, power to affiliate external colleges. The Great War was then on and in view of its absorbing demands on the Administration, the consideration of the subject was put off. On the publication of the Sadler Commission's Report, a Committee was appointed in 1919, to formulate a fresh scheme after taking its recommendations into consideration. It soon submitted its report and action was taken upon it without loss of time. First planned in 1914-15, examined by several Committees of educationists, official and non-official, the University scheme at last emerged out of this prolonged gestation in the form of a concrete Bill. It was introduced in the Legislative Council in the August Session of 1922, and passed into law in March, 1923. The University was brought into existence on the 4th August 1923.

The teaching of the University is conducted partly through the affiliated colleges and partly through the Teaching Departments of the University. The Act makes due provisions for its being made both unitary and affiliating. A list of the colleges in the University and of the Teaching Departments of the University is given below :—

A—Colleges

<i>I. Maintained by Nagpur University in Nagpur.</i>	<i>Standard upto which maintained or admitted.</i>
1. The University College of Law, Nagpur	LL.B.
2. The Laxminarayan Institute of Technology, Nagpur	B.Sc. (Tech.)
3. The University Training College, Nagpur	B.T. and M.Ed.

*II. Maintained by the State Government :**In Nagpur :*

- | | |
|--|---|
| 4. The Nagpur Mahavidyalaya, Nagpur | M.A. |
| 5. The College of Science, Nagpur | D.Sc. |
| 6. The College of Agriculture, Nagpur | B.Sc.(Agr.) |
| 7. The Government Engineering School, Nagpur | Diploma in Engineering (including Architecture) and Art. |
| 8. Medical College, Nagpur | ... M.B.B.S. |

In Amravati :

- | | |
|---|---|
| 9. The Vidarbha Mahavidyalaya, Amravati | B.A. (Pass) and M.A. in Marathi. B.Sc. (Pass). |
| 10. The Government Diploma Training Institute for Men, Amravati | .. Dip. T. |
| 11. The Government Diploma Training Institute for Women, Amravati | ... do |

*III. Maintained by Private Bodies :**(i) At Nagpur :*

- | | |
|---|--|
| 12. Hislop College, Nagpur | ... B.A. (Pass), B.A. (Hons.) M.A. and B.Sc. |
| 13. The S. B. City College, Nagpur | B.A. (Pass), M.A. in Marathi and Hindi and B.Sc. |
| 14. Lady Amritbai Daga College for Women, Nagpur | ... B.A. (Pass). |
| 15. Shri Dada Saheb Dhanwate National College, Nagpur | ... B.A. (Pass). |
| 16. The G. S. College of Economics and Commerce, Nagpur | ... B.Com. |

(ii) At Wardha :

- | | |
|---|--------------------|
| 17. The G. S. College of Commerce and Economics, Wardha | ... B.Com., M.Com. |
|---|--------------------|

(iii) At Amravati :

- | | |
|------------------------------------|---|
| 18. Shri Shivaji College, Amravati | B.A. (Pass) and M.A. in Economics. LL.B. & B.Com. |
|------------------------------------|---|

(iv) At Akola :

- | | |
|-------------------------------------|--------------|
| 19. The Sitabai Arts College, Akola | B.A. (Pass). |
|-------------------------------------|--------------|

(v) *At Washim :*

20. The Rajasthan Aryan College,
Washim B.A. (Pass).

(vi) *At Khamgaon :*

21. The G. S. College of Science and
Agriculture, Khamgaon ... B.Sc. (Pass).

B—Teaching Departments

<i>IV. Teaching Departments of the University.</i>	<i>Standard upto which maintained or admitted.</i>
22. The Department of Political Science	M.A.
23. The Department of Geology	M.Sc.
24. The Department of Bio-Chemistry	M.Sc.
25. The Department of Public Administration and Local Self-Government	The Diploma in Local Self-Government and M.A. in Public Administration.

The medium of examinations for the following examinations will be Hindi or Marathi, as the candidate may choose, with effect from the examinations of the years stated below, viz.—

<i>Examination</i>	<i>Year</i>
1. The Intermediate Examination in Arts (including Commerce)	1951
2. The Intermediate Examination in Science	1952
3. The B.A. (Pass) Examination	1955
4. The B.Sc. (Pass) Examination	1955
5. The B.Com. Examination	1953
6. The Intermediate Examination in Science (Agr.)	1952
7. The B.Sc. (Agr.) Examination	1954
8. The Examination for the Diploma in Teaching	1951
9. The B.T. Examination	1950

For the present certain exceptions are permitted. The change of medium for other courses is also under consideration. Thirty-four text-books required for the Intermediate Science

course have been published in Hindi and Marathi by the University. A number of text-books for the B.Sc. course are under preparation.

Officers and Staff of the University

I. STATUTORY ADMINISTRATIVE OFFICERS :

Chancellor

Dr. B. Pattabhi Sitaramayya, B.A., M.B., C.M., D.Litt.

Vice-Chancellor

Lt.-Col. Pandit K. L. Dubey, B.A., LL.B., M.L.A.

Treasurer

Shri S. K. Wankhede, B.A., Bar-at-Law, M.L.A.

Registrar

Shri U. Misra, M.A., LL.B.

Deputy Registrar

Shri K. R. Pandya, M.A.

Assistant Registrar

Shri V. Shankaran, M.A.

Librarian

Shri G. S. Shukla, M.A., LL.B.

Consulting Engineer

Shri S. N. Tripathi, B.E.

II. OTHER ADMINISTRATIVE OFFICERS

Univeristy Medical Officer

Shri L. R. Lakhkar, M.B., B.S.

University Engineer

Shri G. G. Talajia, B.E.

Officer-in-Charge of Physical Education

Shri M. P. Major.

Assistant Secretary, Laxminarayan Bequest Administration Committee

Shri S. C. Seth.

Superintendent of University Hostels

Shri S. K. Mishra, M.Sc. (Agr.)

Lady Warden, Sadaparva Hostel

Shrimati Sundarabai Didolkar.

Officer-in-Charge of Printing and Publication

Shri K. K. Shrivastava, M.Sc.

Officer on Special Duty

Shri M. R. Thakur, M.A., LL.B

Deans of the Faculties

Arts	...	...	Dr. H.N. Sinha, M.A., Ph.D.(Lond.)
Science	...	...	Dr. V. N. Thatte, D.Sc. (Nag.).
Education	...	...	Dr. V. S. Jha, B.A., Ph.D. (Lond.)
Agriculture	...	...	Shri S. K. Mishra, M.Sc. (Agr.)
Law	...	...	Justice Shri V. R. Sen, M.A. B.Sc. LL.B.
Medicine	...	...	Dr. G. L. Sharma, M.D.
Commerce	...	...	Shri S. N. Agarwal, M.A., F.R.E.S. (London.), M.P.

University Departments

<i>Department of</i>	<i>Political</i>	The Dr. E. Raghavendra Rao Professor of Political Science :
<i>Science</i>		Dr. E. Asirvatham, M.A., Ph.D., B.D.
Reader (Part-time)	...	Shri A. Sen, M.A., B.L., (S. B. City College, Nagpur).

Lecturers Dr. M. P. Buradkar, M.A., Ph.D.,
(Nagpur Mahavidyalaya, Nagpur), (Part-time.)
Shri S. G. Kashikar, M.A.
Shrimati Aparna Bajpai, M.A., LL.B.
(Whole-time.)

Department of Bio-Chemistry The M. G. Chitnavis, Professor of
Bio-Chemistry :
Dr. M. C. Nath, B.Sc. (Hons.),
M.Sc., D.Sc. (Bio-Chemistry),
F.N.I., F.R.I.C.

Lecturers Shri C. H. Chakrabarty, M.Sc.
Shri V. G. Hatwalne, M.Sc.
Shri S. S. Mukherji M.Sc.

Department of Geology ... Reader: Shri K. Sripada Rao,
M.Sc., F.G.S.

Lecturers Shri P. C. Pande, M.Sc.
Shri Y. G. Dekate, M.Sc.
Shri P. H. Kulkarni, M.Sc.

Department of Public Administration and Local Self-Government :

Head of the Department Dr. M. P. Sharma, M.A., D.Litt.
Lecturer in Economics ... Shri V. S. Murti, M.A.
Lecturers (Part-time) ... Shri A. Awasthi, M.A.
Shri Vithal Singh, B.Sc. (Engg.)
Dr. Y. B. Mangrulkar, M.B.B.S.,
D.P.H.
Shri P. N. Mishra, B.Com., LL.B.
Shri R. M. Sinha, M.A., LL.B.
Shri V. K. Bhedegaonkar, B.E.,
A.M.I.E.

Principal of the University College of Law

Shri Y. S. Tambe, B.A., LL.B.

Principal of the University Training College

Shri M. Varma, M.A., M.Ed.

Director of the Laxminarayan Institute of Technology

Dr. P. S. Mene, B.Sc. (Hons.), Ph.D. (London), D.I.C.,
A.R.I.C. (In-Charge).

*Heads of Departments of Studies**(Included in the Faculty of Arts)*

English	Shri M. N. Mitra, M.A.
Philosophy	Dr. Jwala Prasad, M.A., Ph.D. (Cantab.)
History	Dr. H. N. Sinha, M.A., Ph.D. (Lond.)
Political Science	Dr. E. Asirvatham, M.A., Ph.D., B.D.
Economics	Shri V. S. Naidu, M.A., LL.B.
Sanskrit, Pali and Prakrit	Dr. H. L. Jain, M.A., LL.B., D.Litt.
Arabic and Persian	Shri Syed Mohd. Agha Hyder Hasan Abidi, M.A., L.T.
European Languages	Rev. Father E. DeAge
Hindi	Shri S. P. Tiwari, M.A., LL.B.
Marathi	Dr. S. D. Pendse, M.A., M.O.L., Ph.D. (Nag.)
Urdu	Shri S. Rafiuddin, M.A.
Other Indian Languages	Shri R. C. Guha, M.A.
Music	Shri G. D. Joshi, M.A., LL.B.
Geography	Shri S. Mukerjee, M.A.
Home Science	Kumari Vilma
Art	Shri G. K. Joshi Rao, M.A., B.T., A.M.G.D. (Art.)
Mathematics	Shri P. J. Chandy, M.A.
Public Administration and Local Self-Government.	Dr. M. P. Sharma, M.A., D.Litt.
Journalism	Prof. Floyd Baskette, M.A. (Missowri, U.S.A.)

(Included in the Faculty of Science)

Chemistry	Dr. K. Krishnamurti, D.Sc. (Lond.)
Physics	Dr. V. N. Thatte, D.Sc. (Nag.)
Mathematics	Shri P. J. Chandy, M.A.
Zoology	Shri Karam Singh, M.Sc.
Botany	Dr. R. L. Nirula, B.Sc. (Hons.), Ph.D., D.I.C. (Lond.)
Civil Engineering (includ- ing Architecture)	Shri R. G. Buldeo, B.Sc. (Engg.), (Manchester).
Mechanical Engineering (including Electrical and Automobile Engineering)	Shri K. N. Tilloo, B.Sc. (Elec. & Mech. Engg.), A.M.I.E.

Technology Dr. P. S. Mene, B.Sc. (Hons.),
Ph.D. (London), D.I.C., A.R.I.C.
M.I.I.Chem.E.

Geology Shri K. Sripada Rao, M.Sc., F.G.S.

Bio-Chemistry Dr. M. C. Nath, D.Sc., F.N.I.,
F.R.I.C.

(Included in the Faculty of Law)

Law (Vacant)

(Included in the Faculty of Education)

Education Shri M. Varma, M.A., M.Ed.,

(Included in the Faculty of Agriculture)

Agriculture Shri S. K. Mishra, M.Sc. (Agr.)

Botany and Plant Pathology. Dr. G. S. Bhatia, M.Sc., Ph.D.
(Lond.), F.L.S., F.R.M.S.

Chemistry Shri R. C. Shrivastava, B.Sc., B.Sc.
(Tech.) (Manchester), Dipl.
R.T.C. (Glasgow).

Animal Husbandry Shri S. K. Mishra, M.Sc. (Agr.)

(Included in the Faculty of Medicine)

Medicine Shri T. D. Shahani, L.R.C.P.,
M.R.C.S., F.R.C.S., D.O.M.S.

(Included in the Faculty of Commerce)

Accounts and Statistics Shri M. R. Tokhi, M.A., B.Com.,
LL.B.

Banking and Applied Economics Dr. M. M. Shah, M.A., Ph.D.

Commerce and Business Organisation Shri P. J. Patwardhan, M.Com.

Languages (including both English and Indian Languages.) Shri S. N. Agarwal, M.A., F.R.
Econ. S. (London), M.P.

Colleges Admitted to the Privileges of the University

Name of the College.	Name of the Principal.
Nagpur Mahavidyalaya, Nagpur.	Dr. H. N. Sinha, M.A., Ph.D. (London).
Hislop College, Nagpur ...	Dr. D. G. Moses, M.A., Ph.D. (Columbia).
College of Science, Nagpur. ...	Dr. K. Krishnamurti, D.Sc.(London).
Vidarbha Mahavidyalaya, Amravati.	Dr. R. L. Nirula, B.Sc.(Hons.), Ph.D., D.I.C.(London).
College of Agriculture, Nagpur.	Dr. R. P. Asthana, M.Sc., Ph.D., D.I.C. (London), F.A.Sc.
S. B. City College, Nagpur	Shri S. L. Pandharipande, M.A.
Lady Amritbai Daga College for Women, Nagpur.	Dr. Kumari S. Shridevi, M.A., M.Ed., Ph.D. (Columbia).
Government Engineering School, Nagpur.	Shri K. N. Tilloo, B.Sc. (Elec. & Mech. Engg.), A.M.I.E.
Shri Dadasaheb Dhanwate National College, Nagpur.	Dr. D. G. Londhey, M.A., Ph.D. (Leipzig.)
Sitabai Arts College, Akola	Shri N. R. Kelkar, M.A.
Govindram Seksaria College of Commerce, Wardha.	Shri S. N. Agarwal, M.A., F.R.E.S. (London), M.P.
Govindram Seksaria College of Economics and Commerce, Nagpur.	Shri M. R. Tokhi, M.A., B.Com., LL.B.
Rajasthan Aryan College, Washim.	Shri V. P. Mohogaonkar, M.A.
Khamgaon Medical College	Dr. G. L. Sharma, M.D.
Govt. Dip. T. Institute for Men, Amravati.	Shri W.M. Bodhankar, M.A., B.T.
Govt. Dip. T. Institute for Women, Amravati.	Shrimati P. Trimothy, M.A., B.T.

Constitution of the University

The Court is the supreme governing body and has general powers to revise the acts of the Executive and Academic Councils. The Court makes all the Statutes on the recommendation of the Executive Council and elects the Vice-Chancellor. The Treasurer is elected by the Court from among persons recommended by the Executive Council.

The Executive Council is the chief executive body and exer-

cises control over the funds of the University, administers and applies them to purposes permissible under the Act. Subject to certain limitations, it makes the ordinances and after report by a Special Examination Committee, publishes the examination results.

The Academic Council is the chief academic body. It constitutes Faculties and Departments of Study, prepares syllabuses and recommends ordinances embodying the condition of admission to examinations and degrees of the University.

At present there are the following Faculties: Arts, Science, Law, Education, Agriculture, Medicine and Commerce.

The Faculties constitute Boards of Studies for subjects included within their scope. These prepare the Courses of Study.

The University has also a Statutory Finance Committee *which has generally the power to examine receipts and expenditure*, to allocate funds and to sanction expenditure. Among other committees of the University are the Law College Committee, the Training College Committee, the Library Committee, the Students' Information Bureau, the Examinations Recognition Committee, the Laxminarayan Technological Institute Committee and the Sports Committee. The University teachers are appointed by Committees of Selection constituted as follows,—*viz.*, (1) The Vice-Chancellor (*Ex-officio* Chairman), (2) The Head of the Department of Studies in the subject, (3) two experts appointed by the Academic Council, one person, not being an officer or a teacher in the University or in a college, appointed by the Executive Council on the ground of his special knowledge of the subject or subjects with which the teachers are concerned and one member nominated by the Chancellor.

Number of students in the University under the different Faculties during the Session 1952-53

	...	...	...	...	...	4393
Arts	...	...	...	...	...	2859
Science	...	...	...	...	...	709
Law (Previous and Final)	...	...	...	...	...	89
Education	...	...	...	...	...	300
Agriculture	...	...	...	...	...	559
Medicine	...	...	...	...	...	1402
Commerce	...	...	...	...	...

Number of successful students in the different Examinations of 1952.

<i>Examination.</i>	<i>No. Appeared.</i>	<i>No. Passed.</i>
<i>I. Examinations of March-April 1952 :</i>		
1. M.A.	449	323
2. M.Sc.	51	30
3. B.A. (Hons.)	7	6
4. B.A. (Pass)	900	431
5. B.Sc. (Hons.)	5	4
6. B.Sc. (Pass)	295	137
7. B.A. (Hons.) (Minor Subjects)	5	5
8. B.Sc. (Hons.) (Minor Subjects)	3	3
9. Intermediate (Arts)	1510	739
10. Intermediate (Science)	919	430
11. LL.M. ... ..	...	...
12. LL.B. (Final)	259	171
13. LL.B. (Previous)	392	200
14. B.T.	98	96
15. Dip.T.	1	1
16. B.Sc. (Agr.)	68	53
17. Intermediate in Science (Agr.)	93	35
18. B.Sc. (Tech.)	25	22
19. Diploma in Engineering (Final)	106	71
20. Diploma in Engineering (First)	175	64
21. Diploma in Architecture (Final)	7	3
22. Diploma in Architecture (First)	3	1
23. Diploma in Art (First)	14	5
24. Diploma in Art (Final) ... ..	...	...
25. Oriental Learning (Junior)	50	33
26. Oriental Learning (Senior)	26	19
27. Oriental Learning (Higher)	4	3
28. First M.B.B.S.	131	85
29. Final M.B.B.S. (Part I)	95	61
30. Final M.B.B.S. (Part II)	62	14
31. Diploma in Local Self-Government	21	21
32. M.Com.	18	15
33. B.Com.	194	103
34. Intermediate in Commerce	387	171
<i>II. Supplementary Examinations of 1952 :</i>		
1. Intermediate (Arts)	425	96
2. Intermediate (Science)	197	82
3. I.Sc. (Agr.)	41	17
4. Intermediate in Commerce	168	73

<i>Examination</i>	<i>No. Appeared</i>	<i>No. Passed</i>
5. B.A. (Pass)	371	155
6. B.Sc. (Pass)	102	49
7. B.Sc. (Agr.)	14	12
8. B.Com.	77	27
9. Diploma in Engineering (First) ...	57	20
10. Diploma in Engineering (Final) ...	29	16
11. Previous LL.B.	111	39
12. Final LL.B.	106	71
13. First M.B.B.S.	46	34
14. First M.B., B.S. (Part I)	60	31
15. Final M.B., B.S. (Part II)	91	40
16. B.A. (Hons.) (Minor Subjects) ...	1	1

Endowments, Scholarships and Medals

The following are the important endowments :—

(1) *Rao Bahadur Bapu Rao Dada Kinkhede Lectureship*.—A lecturer on an honorarium of Rs. 1,000 is appointed every alternate year to deliver a course of not less than three lectures.

(2) *Rao Bahadur Shridhar Ganesh Paranjpe Memorial Lectureship*.—A lecturer on an honorarium of Rs. 200 is appointed every year or every alternative year as the Executive Council may determine to deliver a course of not less than three lectures in Marathi.

(3) *The Morris Memorial Fellowship Fund*. A fellowship of the value of Rs. 150 per mensem awarded for post-graduate study or research in Arts or Science to be prosecuted in a college in Madhya Pradesh and a scholarship of value of Rs. 50 per mensem awarded for study for the M.A., or M.Sc., Degree of Nagpur University.

(4) *The Shirole Scholarship for Arts Fund*.—Two scholarships of the value of Rs. 8 and Rs. 10 per mensem termed as Junior and Senior Scholarships for Arts respectively awarded to two Maratha Brahmin boys standing highest at the High School Certificate of the M. P. Secondary Education Board and Intermediate (Arts and Science) Examinations, of Nagpur University respectively, every year.

(5) *The Hai-Hai Kshatriya Education Fund*.—One monthly scholarship of the value of Rs. 12 to the student who stands first

from among those successful candidates of the Hai-Hai Kshatriya community at the High School Certificate Examination of the Board of Secondary Education, Madhya Pradesh, of the year and who joins the course for the Intermediate (Arts or Science) Examination in a college in Nagpur University.

(6) *The Mahadeo Hari Wathodkar Memorial Lectureship*.—A lecturer appointed every year or every alternative year for such term and on such monthly salary as the Executive Council may determine, to deliver a course of lectures on any of the following subjects, *viz*,—

- (1) Indian Archaeology,
- (2) Social Anthropology,
- (3) Comparative History,
- (4) Political and Economic Geography,
- (5) Political Science.

(7) *Thakur Charitable Endowment*.—(i) Four scholarships of the monthly value of Rs. 20 each awarded to candidates selected from among students who have passed the High School Certificate Examination of the Madhya Pradesh Secondary Education Board and have joined a college in Nagpur University for prosecution of the Intermediate Science Course and (ii) one Fellowship of the monthly value of Rs. 150 awarded to the candidate selected from among persons who have passed the M.Sc., B.Sc. (Hons.) or B.Sc. (Agr.) Examination of Nagpur University for prosecution of research in Science.

(8) *K. S. Thakur Sada Parva Maintenance Fund*.—Income applied to the maintenance, repairs and improvement of the "Sada Parva" building in Dhantoli, Nagpur, donated by Shrimati Janki Bai Thakur to the University for use as a Home for Women students of the University.

(9) *Dr. E. Raghavendra Rao Memorial Professorship Endowment Fund*.—Income utilised mainly for the salary of a University Professor appointed to the Dr. E. Raghavendra Rao Professorship for Political Science.

Besides these, a large number of Scholarships and Medals are awarded for proficiency at various examinations and in particular subjects, as under :—

- (1) R. B. B. Gupta Gold Medal, (2) Radha Bai Paonaskar Scholarship and Gold Medals, (3) Ramkrishna Govind Mote

Scholarship, (4) Waman Raghunath Joshi Prize, (5) K. B. H. M. Malak Gold Medals, (6) Daji Hari Wadegaonkar Gold Medal, (7) Jubbulpore Horticultural Show Prize, (8) Sushila Vishnupant Jakatdar Elocution Prize, (9) Balvant Rao Mahajan Prize, (10) Saraswati Bai Kolte Gold Medal, (11) University Post-graduate Research Scholarship, (12) Korea Durbar Gold Medals, (13) Dewan Bahadur Ramkrishna Rao Pandit Silver Medal, (14) University World Politics Essay Gold Medal, (15) Sir Arthur Blennerhassett Memorial Silver Medals, (16) N. K. Behere Gold Medal, (17) Ramanujam Mathematics Gold Medal (18) V. R. Lakkhar Silver Medal, (19) Vice-Chancellor's Gold Medal, (20) Kesheo Khanderao Wadegaonkar Silver Medal (21) N. K. Behere Depressed Classes Prizes, (22) Shrimati Jayanti Bai Kolte Silver Medal, (23) N. K. Behere Inter-Communal Understanding Prizes, (24) Radha Bai Govind Oka Scholarship, (25) Gopalrao Ganesh Chate Gold Medal, (26) Chandrabhaga Bai Chate Gold Medal, (27) Prakya Ganpat Rao Gold Medal, (28) R. B. Sitaram Ramchandra Pandit Silver Medal, (29) Krishna Rao Golwalker Prize, (30) Hari Pandit Prize, (31) Chakradeo Memorial Gold Medal, (32) Madhav Rao Gangadhar Rao Chitnavis Memorial Fund, (33) Madhav Rao Chandorkar Memorial Gold Medal, (34) Ramchandra Krishna Chandorkar Memorial Gold Medal, (35) Robertson Gold Medal, (36) Narayan Mukund Paonasker Prize, (37) Shivaji Narayan Makode Gold Medal, (38) Soubhagyavati Parbati Bai Makode Gold Medal, (39) Kamala Narayan Benere Literary Prize, (40) Vasant Krishnarao Khandekar Scholarship and Medal, (41) K. S. Behere Silver Medal for Teachers, (42) V. S. Tamma Silver Medal, (43) Raghunath Govind Khandekar Silver Medal, (44) Shree-mati Parbati Bai Kashinath Dixit Scholarship, (45) Raghunath Harihar Ping'ley Memorial Gold Medal, (46) Nago Rao Narayan Rao Wazalwar Gold Medal, (47) Gopala Sharana Chaturvedi Gold Medal, (48) R. B. Dr. K. P. Sen Gupta Memorial Gold Medal, (49) D. B. Seth Gopaldas Bulakidas Mohta Gold Medal, (50) Dr. Sir Bipin Krishna Bose Memorial Gold Medal, (51) Arun Memorial Prize, (52) Niyogi and Puranik Diamond Jubilee (1946) Scholarship, (53) W.R. Puranik Gold Medal, (54) Govindram Seksaria College of Commerce (Wardha) Gold Medal, (55) Second Ramkrishna Govind Mote Scholarship, (56) The Indian Historical Records Commission and Indian History Congress Commemoration Prizes, (57) University Research Studentships, (58) R.B. Jatashankar P. Trivedi, Memorial Gold Medal.

General Regulations for acceptance of Endowments by the University among other conditions prescribed—

	Rs.
(1) for a gold medal not less than ...	5,000

	Rs.
(2) for a Fellowship not less than ...	20,000
(3) for a Scholarship for under-graduate courses not less than ...	10,000
(4) for a Scholarship for post-graduate courses not less than ...	50,000
(5) for a prize which will ordinarily be in the form of books not less than ...	3,000

Library

Libraries.—Each College maintains its own library which is fairly sufficient for its needs. The University library is housed in a separate building which adjoins the office and the Convocation Hall. The total amount spent for purchasing books and periodicals since 1924 is Rs. 2,57,314-7-0. The Library at present contains 53,070 volumes. The manuscripts section was started in April 1945 and the University possesses more than 4,226 manuscripts acquired through purchase and gift. Arrangement has also been made for their being examined and catalogued by a scholar specially appointed for the purpose. In addition, there is a well-stocked Law Library for the University College of Law. It is up-to-date and has got a fairly complete set of Law Reports, Indian and English.

Laboratories

The Laboratories of the connected institutions are fairly well fitted up for teaching Science subjects upto the standards for which they teach.

Provision for Research

At present, the University awards one Post-graduate Scholarship in Science for research from an Endowment Fund, three fellowships for research in Bio-Chemistry, three Fellowships and six Scholarships for research in Technology from the Laxminarayan Bequest Fund. With effect from the financial year 1951-52, the University has instituted two Research Studentships—one in the Faculty of Science and one in the Faculty of Arts—each tenable for a period of two academic years. Besides the above, the Government of India have allotted the following Research Training Scholarships to the University:—(Rs. 200 P. M.) Four Senior Scholarships—one each in Bio-Chemistry, Geology, Chemistry and Botany. Three Junior Scholarships one each in Geology, Chemistry and Botany. The Bio-Chemistry Department of the University is mainly a Research Department

consisting of one Professor and two Lecturers carrying on investigations on the new Antidiabetic Principle (Amellin) as well as other general subjects such as Vitamins, Hormones, Enzymes, etc.

Publication and Extension Work

There are no University publications of research papers, no research work being done under the direct management of the University at present. The University does, however, publish a Journal of Research called the Nagpur University Journal, beginning with the year 1945.

Military Training

The University Officers Training Corps was abolished on 15th July 1948 and has been replaced by National Cadet Corps on the same date. The strength of the Corps in the University on 30th June 1952 was 29 Teacher Officers and 937 Cadets.

A building for accommodating the office and stores of the Corps was constructed by the University in August 1934. The Ordinances provide for the inclusion of Military Science as an optional subject for the Intermediate (Arts), B.A., and B.Sc. Examination, though on account of financial stringency, the State Government has not been able to sanction any grant for instruction in Military Science.

Associations in the University

The connected colleges have their own debating and literary societies. Some of these are inter-collegiate, *e.g.*, Nagpur Philosophical Society, Historical Society, Economics Society, etc. Besides these, there are the following, *viz.*, (i) A University Union Society, (ii) A University Historical Research Society and (iii) Nagpur University Ramayan Mandal.

Residence and Cost of Living

It is difficult to make a general statement in the matter. The cost of boarding varies with the Hostel. The arrangements in all the hostels are in charge of the students themselves. Every college has a hostel. Besides, in Nagpur there is a hostel managed by the Y. M. C. A. which is recognised by the University.

Budget

The total income (exclusive of Debt Heads) for the year 1951-52 was Rs. 9,25,213-11-0. As against this, there was an expenditure (exclusive of Debt Heads) of Rs. 10,64,171-7-6.

During the year 1951-52, the income (exclusive of Debt Heads) of the Nagpur University consisted of the following items—

	Rs.	A.	P.
1. State Government and Central Government Grants	2,32,815	0	0
2. Tuition and Examination Fees	5,88,304	8	9
3. Donations	6,228	2	6
4. Other income	97,865	15	9
	<hr/>		
	9,25,213	11	0

The proportion of the Government Grant to the other sources of income works out to 33.6 per cent.

The accounts of the Trust Funds under the administration of the University are maintained separately by Postal Savings Account for each of the Trust Funds the corpus of each Trust Fund vesting in the Treasurer Charitable Endowments.

Provident Fund

Every whole-time officer, teacher, or other servant of the University other than one whose services have been lent to the University by Government, permanently appointed to a substantive appointment, has, as a condition of his service, to become a depositor in the University Provident Fund.

Subscription to the fund is 8 per cent on the salaries of the depositors, deducted monthly from their salaries. Every month, the University makes, in the case of each subscriber, a contribution at the rate of 12 per cent. In the case of employees entering the service after 9-12-1938 the University makes a contribution at the rate of 8 per cent, if the salary is less than Rs. 200 and at 6½ per cent, for others.

Non-Contributory Provident Fund

Employees holding temporary posts in a College Department maintained by the University become eligible for subscription

to the Non-Contributory Provident Fund from such date as may be fixed by the Executive Council. Subscription to this Fund is 8 per cent on monthly salary and half-yearly interest is added. Advances for illness may be granted from this fund to the extent of $\frac{1}{4}$ th of total deposit.

On confirmation of such an employee without break of service the University contributes at the rate of 8 per cent for those drawing less than Rs. 200 p. m. and $6\frac{1}{4}$ per cent in the case of those drawing more than Rs. 200 from the date of appointment.

Provident Fund Advance for Insurance Premium

Non-refundable advances from the Provident Fund Deposit, of a University servant are paid on the same terms as prescribed under the Government Provident Fund Rules, subject to such variations as are approved by the Vice-Chancellor.

No subscriber is entitled to receive any contribution to his provident fund from the funds of the University if his services are dispensed with for misconduct or if he has been in the service for less than 3 years or resigns his appointment without permission of University.

Compound interest reckoned half-yearly at 3 per cent is allowed at present on the amount standing to the credit of every depositor on the 30th September and 31st March respectively, in each year.

Women's Education

The Lady Amritbai Daga College for Women, Nagpur, is the only institution admitted to the privileges of the University exclusively for women. There are other colleges also where co-education is provided. The University has made a Statute, under which the Executive Council grants permission to women who have not pursued a course of studies in the University or a College to appear at the University examinations.

At the University examinations held in 1952 the number of successful women candidates was as follows:—

<i>Examination of March-April, 1952 :</i>							45
M.A.	...	...	...	...	...	...	4
M.Sc.	...	...	...	...	...	...	6
Previous LL.B.	...	...	...	...	...	...

Final LL.B.	...	...	...	...	...	3
B.A. (Hons.) (Major Subject)	...	...	...	...	...	1
B.Sc. (Hons.) (Major Subject)	...	...	...	...	...	1
B.A. (Pass)	...	...	...	...	...	132
B.Sc. (Pass)	...	...	...	...	...	8
B.A. (Hons.) (Minor Subjects)	...	...	...	...	...	1
B.Sc. (Hons.) (Minor Subjects)	...	...	...	...	...	...
B.T.	...	...	...	...	...	36
First M.B.B.S.	...	...	...	...	...	11
Final M.B.B.S. (Part I)	...	...	...	...	...	13
Final M.B.B.S. (Part II)	...	...	...	...	...	3
Intermediate Arts	...	...	...	...	...	308
Intermediate Science	...	...	...	...	...	13
Oriental Learning—						
Junior	...	...	...	...	...	14
Senior	...	...	...	...	...	1

Supplementary Examinations of September-October, 1952 :

Intermediate Arts	...	...	...	...	...	41
Intermediate Science	...	...	...	...	...	4
B.A. (Pass)	...	...	...	...	...	48
B.Sc. (Pass)	...	...	...	...	...	2
Previous LL.B.	...	...	...	...	...	...
Final LL.B.	...	...	...	...	...	2
First M.B.B.S.	...	...	...	...	...	8
Final M.B.B.S. (Part I)	...	...	...	...	...	4
Final M.B.B.S. (Part II)	...	...	...	...	...	4

A number of prizes, medals and scholarships are reserved exclusively for women.

Students' Information Bureau and Its Activities

The Students' Information Bureau makes available to the students of the University information regarding foreign Universities and helps them to secure admission at Universities in U. K. and U. S. A. The Bureau has a useful reference Library consisting of up-to-date Calendars, Catalogues and other publications relating to the various Universities and Technical and Research Institutions in the U. K. and U. S. A.

Provision for Safeguarding Health, Medical Inspectors Discipline, etc.

An important step towards the promotion of the Physical Welfare of its students was taken by the University, when on the

State Government agreeing to contribute half the cost of his salary, the University appointed a whole-time officer, with effect from 7th August, 1935, for the organization and supervision of Physical education in the University.

Compulsory Physical Education was introduced in this University stage by stage. As a first step Physical Education was made compulsory for the first year college students in the year 1936 ; after two years it was made compulsory for second year students. Then in the year 1944 it was made compulsory for all the under-graduate students except the members of University Officers Training Corps. In the beginning, Physical Training Classes were conducted on alternate days for each student, but since October, 1944, Physical Training has been made compulsory for each under-graduate student every morning. Physical Training has also been made compulsory for Women under-graduate students from the session 1951-52 and P. T. Instructresses have been appointed by the colleges for the purpose.

Every year a medical inspection is conducted in Colleges. The students and their guardians are informed of the defects of the students for necessary action.

A detailed Health Survey of two representative colleges in Nagpur (Nagpur Mahavidyalaya and S. B. City College), on the lines and methods followed in case of similar survey by the University of Sheffield, was completed during the year. The survey has yielded interesting and significant results and its report which has been published will form the basis of the University scheme for the improvement of the health of the students.

Lectures on Physical Education and allied subjects are arranged by the colleges with a view to creating more interest in the subject on the part of the students and to enable them to appreciate the importance of physical education.

The Physical training classes of every college are inspected by the Officer-in-Charge of Physical Education periodically and necessary instructions are imparted by him.

From the year 1945 arrangements have been made to conduct Physical Training classes in various centres in different parts of the City where college students, irrespective of the colleges to which they belong, assemble and have Physical training.

One of the college instructors is held responsible for Physical training of all the students at the centre assigned to him. This arrangement has eliminated inconvenience felt by the students in going long distances and wasting time.

Short courses for Physical Training Instructors and student-instructors are conducted every year for two weeks at Nagpur by the Officer-in-Charge of Physical Education.

Students are refused admission to the University Examinations if there is considerable deficiency in the attendance at the Physical training classes. A student must attend at least 80 per cent of the physical training classes.

The University holds annually Sports Tournaments for Cricket, Hockey, Football, Athletics, Badminton, Tennis, Hututu, Kho-kho and Wrestling and pays Travelling and Halting allowances to out-stationed college teams as per rules and regulations of the University Sports Tournaments framed by the Board of Physical Welfare, Nagpur University, which looks after all these activities. The University also participates in the various items of the sports tournaments organised by the Inter-University Board of India.

Almost all the colleges connected with the University have good playing fields attached to them and ample opportunities are given to the students to take part in out-door games.

The University acquired about 18 acres of land, which is a combined gift of the State Government and Shri W. R. Puranik, an ex-Vice-Chancellor of the University. His Excellency the Chancellor laid the Foundation-Stone of the Sports Pavilion on December 5, 1937.

War Concessions

The concessions which the University grants to its students who have "actively served" for a period of not less than one year are, generally speaking, of two kinds:

- (1) Those who have proceeded on such active service after attending part of a course for an examination in college in Nagpur University or, after actively serving, has attended the course of study for the examination for an academic year or such part of an academic year as may be approved by the Vice-

Chancellor in this behalf may, within the three years and a half immediately following their disembodiment or demobilisation, or while still in "active" service, take that examination without any further attendance at the course ;

- (2) Those who have failed at an examination conducted by Nagpur University immediately before their joining active service, may, within the three years and a half immediately following their disembodiment or demobilisation, or while still in "active" service, take the examination again only in those subjects in which they had failed.

Courses of Study, Examinations and Degrees

The University confers the degrees of B.Com., M.Com. and Ph.D. in Commerce ; B.A., B.A. (Hons.), M.A., Ph.D., and D.Litt., in Arts ; B.Sc., B.Sc. (Hons.), B.Sc. (Tech.), M.Sc., M.Sc. (Tech.), Ph.D., and D.Sc., in Science ; LL.B., LL.M., and LL.D., in Law ; B.T., M.Ed., and Ph.D., in Education ; and B.Sc.(Agr.), M.Sc.(Agr.) and Ph.D., in Agriculture ; M.B.B.S. in Medicine ; Diplomas in Teaching, Engineering, Art and Local Self-Government are also awarded. Examinations in Oriental Learning are being held from the year 1938. With effect from 1941, a course for the Diploma in Co-operation has been introduced. Only graduates in Arts of Nagpur University are eligible for the examination. A Diploma and a Certificate Course in Journalism have also been introduced from the academic year 1952-53.

Admission to the University

Admission to the University is confined to students who have passed the High School Certificate Examination held under the C. P. High School Education Act of 1922 or Board of Secondary Education, Madhya Pradesh or any other recognised equivalent examination.

Courses of Study and Examinations in the Faculty of Arts

Admission to Examinations—For all examinations of the University, candidates must have prosecuted a regular course of studies in a college except as follows :—

- (a) Whole-time salaried teachers of recognised educational

institutions in the State may, under certain conditions, be admitted to the examinations in Arts and Science except B.A. (Hons.) and B.Sc. (Hons.). A teacher of Commerce in a recognised High School may also be admitted, under certain conditions, to the I.Com. and B.Com. Examinations.

- (b) Women candidates who have not pursued a regular course of studies in a college or in the University may be admitted to examinations in Arts and Science [other than that for B.A. (Hons.) and B.Sc. (Hons.)] and Law under certain conditions.
- (c) Candidates who have been admitted once to an examination, may be re-admitted to the same examination, without joining a college.
- (d) A B.A. of any recognised university may be admitted to the M.A. Examination provided the subject taken by him for the M.A. Examination is one of the subjects taken by him at or in which he subsequently passes his B.A. Examination and not less than three years shall have elapsed since his graduation for the purpose of admission to the M.A. Examination. A similar rule is in force in respect of the B.Sc.'s for the purpose of admission to the M.Sc. Examination in Mathematics.
- (e) A whole-time salaried librarian or clerk of (a) the Nagpur University Library; (b) A Library of a College connected with the University; or (c) a Library in Madhya Pradesh recognized by the Academic Council, may be admitted, under certain conditions, to the Intermediate (Arts and Science) Examination or the Examination for the B.A. (Pass), B.Sc. (Pass), M.A. or M.Sc. Degree.

Intermediate Examination—The course of study extends over two years subsequent to passing the High School Certificate examination or any other recognized equivalent examination and candidates are required to study for the examination
 1. English (3 papers) 2. Composition in a Modern Indian Language or Supplementary English Composition (1 paper), 3. Any three of the following.—Mathematics (3 papers), a Classical Language (2 papers), History and Allied Geography (2 papers), Logic (2 papers), Economics (2 papers), French (2 papers and

Viva Voce), Civics (2 papers), Modern Indian Language (Hindi, Urdu and Marathi 2 papers in each), Geography (2 papers and Practical), Music (1 paper and Practical) and Home Science (2 papers and Practical) (for women only).

Candidates are, at their option, permitted to offer "A" Certificate of the University Officers Training Corps or "B" Certificate of the National Cadet Corps or "G-I" Certificate of the National Cadet Corps (Girls' Division) in lieu of one of the optional subjects.

Candidates who obtain 33 per cent in English, 30 per cent in other subjects and 33 per cent in the aggregate are qualified for a pass in the Third Class; those obtaining less than 60 per cent but not less than 45 per cent for a pass in the Second Class; and those obtaining 60 per cent or more in the aggregate, for a pass in the First Class.

Bachelor of Arts (Pass)—Candidates who have passed the Intermediate Examination of this or any other recognized equivalent examination of another University are eligible for admission to the course, which extends over two academic years. The subjects for study and examination are Compulsory English (2 papers) and three of the following.—1. English Literature (2 papers), 2. A Classical Language (3 papers), 3. A Modern Indian Language (3 papers), 4. French (3 papers and *Viva Voce*), 5. Pure Mathematics (3 papers), 6. Applied Mathematics (3 papers), 7. History (2 papers), 8. Geography, (2 papers and Practical), 9. Economics (2 papers), 10. Philosophy (3 papers), 11. Political Science (2 papers), 12. Military Science, 13. Music (1 paper and Practical) and 14. Home Science (2 papers and Practical) (for women only).

Candidates who obtain 33 per cent in each subject are entitled to a pass in the Third Class. Those obtaining less than 60 per cent but not less than 45 per cent are entitled for a pass in the second class, and those obtaining 60 per cent or more in the aggregate for a pass in the First Class.

Master of Arts—The course extends over two academic years subsequent to the passing of the B.A. or any other recognised equivalent examination. A candidate may offer any one of the following subjects.—A Language (English, Sanskrit, Pali and Prakrit, Arabic, Persian, Marathi, Hindi or Urdu), Philosophy, History, Pure Mathematics, Applied Mathematics,

Economics, Political Science, Geography or Public Administration.

The number of papers prescribed for each subject in the M. A. Examination is given below—

1. English ...	8	8. Hindi ...	8
2. Sanskrit ...	8	9. Philosophy	8
3. Pali and Prakrit	8	10. History ...	7
4. Arabic ...	8	11. Mathematics	
		(Pure)	7
5. Persian ...	8	12. Mathematics	
		(Applied)	7
6. Urdu ...	8	13. Economics	7
7. Marathi ...	8	14. Political	
		Science.	7
		15. Geography	8 (including Papers VII and VIII Practical.)
		16. Public Ad- ministra- tion. ...	8

Candidates offering English, History, Economics, Philosophy and Public Administration have also to appear at a *viva voce* examination.

The marks required for passing the Examination are 36 per cent.

For

I Division ...	60 per cent of the aggregate
II Division ...	48 per cent of the aggregate
III Division ...	36 per cent of the aggregate.

B.A. (Hons.) and B.Sc. (Hons.)—The course for the degrees extends over three years and only those who pass the Intermediate Examination in the first or second division are admitted to the course. Each candidate is required to take one major subject and two minor subjects, one of which, in the case of B.A. (Hons.) will be Compulsory English or English Literature. The list of subjects from which major and minor subjects may be selected is the same as that for B.A. (Pass) and B.Sc. (Pass) Examination respectively. (French and Latin may not be offered as major subjects). The standard of the Examination is the same as that of the present M.A. and M.Sc. Examinations. The first Honours Examination was held in March 1936. Honours

graduates are eligible for the Master's degree after a lapse of one year without any further examination.

Doctor of Philosophy.—Candidates who have obtained the degree of Master of Arts or Bachelor of Arts with Honours, or Master of Commerce of this University or a degree of any University recognised by Nagpur University as equivalent to its degree of M.A., are eligible for this degree after prosecuting research for two years. Every candidate shall prepare his thesis under the guidance of a supervisor to be appointed by the Academic Council.

Doctor of Letters.—Candidates who have been admitted not less than three years previously to the degree of Doctor of Philosophy of Nagpur University or to a degree recognised by the University as equivalent thereto, for not less than eight years previously to the degree of Master of Arts of the University or to a degree recognised by the University as its equivalent, are eligible to offer as candidates for the Degree of Doctor of Letters. Every candidate for the degree must submit one or more treatises being original contributions to the advancement of learning.

Persons residing outside Madhya Pradesh are not permitted to submit theses for Doctorates of the University unless the degree which qualifies them for such submission is a degree of Nagpur University.

Diploma in Local Self-Government.—The Diploma course extends over one academic year and is open to—

- (a) those who have passed the Intermediate Examination in Arts or other equivalent examination ;
- or (b) are employees of a Local Self-Government body in Madhya Pradesh and have passed the High School Certificate or other equivalent examination.

The subjects of study and examination are—

- (1) Local Self-Government in Madhya Pradesh, (2) Local Finance and Accounts in Madhya Pradesh, (3) (a) Municipal Administration, Municipal Engineering and Town Planning (b) Public Health, (4) Comparative Local Government and (5) Practical Training Test. The *Viva Voce* shall be based on the theoretical knowledge and the practical experience which the students have gained.

In order to be successful at the examination, an examinee must obtain not less than thirty per cent marks in the test of practical training and not less than thirty-six per cent marks in the papers and test of practical training taken together. Successful examinees obtaining sixty per cent or more of the aggregate marks are placed in the first division, those obtaining less than sixty per cent, but not less than forty-eight per cent in the second division and all other successful examinees, in the third division.

Diploma and Certificate Course in Journalism—The Diploma Course extends over one academic year and is open to those who hold a degree of Nagpur University or a degree of any University incorporated by law in India.

The examination shall consist of three parts, *viz.*—

Part I: Written examination in the following papers :

Paper I—

- (a) Introduction to Journalism
and (b) Business and Law of Journalism.

Paper II—

- (a) News Reporting and Writing.
and (b) Printing and Typography as well as Editing.

Paper III—

Articles and Feature Writing.

Paper IV.—

Either.

- (a) Creative Writing

OR

- (b) Social Education Materials Writing.

Paper V.—

Current Affairs.

Part II:

A.—Practical Examination in—

1. News Reporting and Writing.
2. Printing and Typography
3. Editing
4. Article and Feature Writing
5. Creative Writing or Social Education Materials Writing.

B.—Class Work.

Part III:

Test in Internship in Journalism.

Every candidate for the examination before he is admitted to the examination (i) shall have attained proficiency in Shorthand and Typewriting to the satisfaction of the Principal of the College and (ii) shall be required to undergo a course of Internship for a period of not less than twelve weeks in journalistic practice work approved by the Head of the Department of Studies in Journalism. The journalistic practice work may be carried out in establishments of approved newspapers of Indian Languages as well as those of English newspapers.

In order to pass a candidate must obtain not less than forty per cent of the marks in the papers taken together in each of the three parts of the examination and not less than fifty per cent marks in class work.

Successful examinees obtaining sixty-five per cent or more of the aggregate marks shall be placed in the first division, those obtaining less than sixty-five per cent but not less than fifty per cent. of the aggregate marks, in the second division and all other successful examinees, in the third division.

The Certificate Course—Also extends over one academic year and is open to those who passed the High School Certificate Examination of the Board of Secondary Education, Madhya Pradesh, or an examination recognised as equivalent thereto.

The syllabus for the examination shall be the same as that for the examination for the Diploma in Journalism, except that the candidates for the examination shall not be examined in Papers I and IV in Part I of the Examination for the Diploma in Journalism.

The percentage of marks for pass and divisions is the same as is prescribed for the examination for the Diploma in Journalism.

In both the examinations there is a provision for appearing in one or more parts of the examinations in different years instead of in all the three parts of the examination in one and the same year. If any candidate fails to pass the examination in all the three parts, within a period of three years from the date of the examination in which he was eligible for the first time for admission in one or more parts, he shall not be admitted to the examination in any subsequent year, unless he takes the examination in all the three parts together.

Successful examinees who have not taken their examination

in all parts in one and the same year shall be placed in the pass division.

Examinations in Oriental Learning

The University holds Junior, Senior and Higher Diploma Examinations in Sanskrit, Pali or Prakrit, and Persian or Arabic. The media of examination and instruction are; Sanskrit in the case of candidates offering Pali or Prakrit ; Persian in the case of candidates offering Persian and Urdu in the case of candidates offering Arabic.

Persons who have received instruction for two years from a teacher recognised for the purpose are eligible for admission to the Examination. Besides, whole-time salaried teachers in recognised educational institutions and women are allowed to appear at the Junior Diploma Examination.

For the Senior Diploma Examination persons who have received instruction for two academic years from recognised teachers, teachers and women, who have passed the Junior Diploma Examination of this University or any other recognised equivalent examination are eligible. Graduates of Nagpur University or of other recognised Universities are also admitted.

For the Higher Diploma Examination persons who have received instruction for two academic years from recognised teachers, teachers and women who have passed the Senior Diploma Examination of this University or other equivalent examination may be admitted. Persons who have passed the M.A. Examination of Nagpur University or other equivalent examinations may also be admitted.

Persons obtaining thirty-three per cent in the aggregate are placed in the third division. Those obtaining sixty per cent or more are placed in the first division, those obtaining less than sixty per cent but not less than forty-five per cent are placed in the second division.

The number of question papers for each examination is ; Junior Diploma 3 ; Senior Diploma 4 ; and Higher Diploma 6.

Science

Intermediate Examination.—The conditions of admission to the course are the same as those for the Intermediate Examination

in Arts and a candidate is required to study for examination the following subjects :—(1) English (3 papers), (2) Composition in a Modern Indian Language or Supplementary English Composition (1 paper), (3) Physics (2 papers and a practical examination), (4) Chemistry (2 papers and a practical examination), (5) Mathematics (3 papers) or Biology (2 papers and a practical examination).

A candidate may, at his option, offer "A" Certificate of the University Officers' Training Corps or "B" Certificate of the National Cadet Corps or 'G-I' Certificate of the National Cadet Corps (Girls' Division), in lieu of English Papers I and II.

Candidates who obtain 33 per cent of the marks in English, 30 per cent of the marks in other subjects and 33 per cent in the aggregate are eligible for a pass, those obtaining 60 per cent or more being placed in the First Division, those obtaining less than 60 per cent but not less than 45 per cent in the Second Division, and other successful candidates in the Third Division.

Bachelor of Science (Pass).—The course extends over two academic years subsequent to passing the Intermediate Examination of this University or any recognised equivalent examination of another University. The following are the subjects for study and examination,—Compulsory English and one of the following groups, viz.—(1) Pure Mathematics, Physics and Chemistry, or (2) Chemistry, Botany and Zoology, or (3) Pure Mathematics, Applied Mathematics and Physics, or (4) Pure Mathematics, Applied Mathematics and Chemistry, or (5) Chemistry, Geology and Pure Mathematics, Physics, Botany or Zoology. There are two papers in Compulsory English, two papers and practical in Physics, Zoology, Botany and Geology ; three papers and practical in Chemistry and three papers in Mathematics.

Geology has been introduced as a subject of the course from the examinations of 1948.

It is also possible to offer Military Science as an option but no examination in the subject has been held in the past nor will any be held in the immediate future.

A candidate may offer "B" Certificate of the University Officers' Training Corps or "C" Certificate of the National Cadet Corps, or "G-II" Certificate of the National Cadet Corps (Girls' Division) in lieu of Compulsory English.

The minimum marks for success at the examination are the same as those for B.A. Examination except that candidates must pass separately in the practical part of each laboratory subject.

Master of Science.—The course of study extends over two years subsequent to passing the B.Sc. Examination of Nagpur University or an equivalent recognised Examination of any other University. The following are the subjects for study and any one of them may be selected.—Mathematics, Physics, Chemistry, Zoology, Botany, Geology, Statistics, or Bio-Chemistry.

The number of papers prescribed is as follows—

- (1) Mathematics (Pure)—7, (2) Mathematics (Applied)—7, (3) Physics—5, (4) Chemistry—5, (5) Zoology, —5, (6) Botany—5, (7) Geology—5, (8) Statistics—7, and (9) Bio-Chemistry—6.

Bio-Chemistry, which was one of the papers under Chemistry so long, has been introduced as a separate subject for M.Sc. course from the academic year 1952-53.

Doctor of Philosophy—Candidates who have obtained the degree of Master of Science of this University or a degree of any University recognised by Nagpur University as equivalent to its degree of M.Sc., are eligible for this degree, after prosecuting research for at least two years. Every candidate shall prepare his thesis under the guidance of a Supervisor to be appointed by the Academic Council.

Doctor of Science—Candidates who have obtained the Master's degree in Arts of this University with Mathematics as a subject of their examination, or a Master's Degree in Science are eligible to offer a thesis for the D.Sc. Degree provided three years have elapsed since the Master's Degree was taken. Every candidate must submit a thesis based on the result of research on a subject prescribed for the M.Sc. Examination and conducive to the advancement of Science in general.

Persons residing outside Madhya Pradesh are not permitted to submit a thesis for Doctorates of the University unless the degree which qualifies them for such submission is a degree of Nagpur University.

Bachelor of Science (Technology)—The course extends over two academic years subsequent to the passing of the final examination

for the degree of Bachelor of Science of this University or a degree recognised by Nagpur University for this purpose with Chemistry as one of his subjects for the examination, and Physics, Chemistry and Mathematics as three of his subjects for the Intermediate (Science) Examination of Nagpur University or an examination recognised as equivalent thereto.

A candidate is examined in one of the following groups.—

Group I—Oil Technology.

Subjects.—(1) General Engineering, (2) General Chemical Engineering and (3) Technology of Oils, Paints and Varnishes.

Group II—Chemical Engineering :

Subjects.—(1) General Engineering, (2) Chemical Technology and (3) Advanced Chemical Engineering.

Candidates must obtain at least forty per cent of the total marks in each subject and at least forty per cent of the total marks in each practical examination. Those obtaining sixty per cent or more marks are placed in the first division, those obtaining less than sixty per cent but not less than fifty per cent in the second division and all other successful examinees obtaining less than fifty per cent in the third division.

From the academic year 1952-53 a four years' course in B.Sc. (Tech.) has been introduced in two parts, *viz.*—I and II under a new syllabus providing admission to those who have passed the Intermediate Examination of the Nagpur University or an examination recognised as equivalent thereto with Physics, Chemistry and Mathematics among their subjects at the examination.

A candidate for Part I shall be examined in (1) Chemistry, (2) Mathematics, (3) Physics, (4) Applied Mechanics and (5) Mechanical Technology.

A candidate for Part II shall be examined in (1) Chemical Technology, (2) General Chemical Engineering, (3) Either (a) Chemical Engineering design or (b) Oil Technology or (c) Fuel Technology, (4) Advanced Physical Chemistry and Industrial Stoichiometry, (5) Heat Engines, (6) Strength of Materials, (7) Electrical Engineering and (8) Elements of Industrial Organisation.

In order to be successful at the examination in either part an

examinee must obtain at least forty per cent of the maximum marks in each theory paper and at least forty per cent of the maximum marks in each practical examination and the Home Paper and must obtain not less than 50 per cent of the aggregate marks at the examination in that part.

Successful examinees obtaining sixty-five per cent or more of the marks are placed in the first division and those obtaining less than sixty-five per cent but not less than fifty per cent in the second division. Those who are placed in the first division and have obtained not less than seventy-five per cent marks are declared to have passed their examination with distinction.

M.Sc. (Tech.)—Persons who have passed the examination for the B.Sc. (Tech.) degree of the Nagpur University or any other equivalent examination may offer themselves as candidates for the degree of Master of Science (Technology). Every candidate must prepare a thesis under a Supervisor approved by the Academic Council.

Examination for the Diploma in Engineering

The First Examination for the Diploma in Engineering.

The course is open to students who have passed the High School Certificate Examination or any other recognised equivalent examination and extends over one academic year in the case of Group A (Civil Engineering) and Group B (Mechanical, Electrical and Automobile Engineering) and two academic years in case of Group C—(Architecture). Every candidate shall be examined in one of the following groups of subjects, *viz.*—

A. Civil Engineering—

- (1) Engineering Drawing, (2) Mathematics, (3) Physics, (4) Chemistry, (5) General Civil Engineering and Architecture ; (6) Surveying ;

B. Mechanical, Electrical and Automobile Engineering—

- (1) Engineering Drawing, (2) Mathematics, (3) Physics, (4) Chemistry, (5) General Mechanical, Electrical and Automobile Engineering and (6) Surveying.

G. Architecture—

- (1) Architectural Drawing. (2) Theoretical Construction, (3) Architectural Design, (4) History of Architecture,

- (5) Building Construction and materials, (6) Surveying and Levelling.

Candidates must obtain the minimum marks prescribed in each subject and forty per cent in the aggregate. Those obtaining sixty per cent or more of the aggregate marks are placed in the first division, those obtaining less than sixty per cent but not less than fifty per cent are placed in the second division and all other successful examinees are placed in the third division.

The Final Examination for the Diploma in Engineering.

The course of study extends over two academic years after passing the First Examination for the Diploma in Engineering of this University or for not less than one year after passing the Previous Subordinate Examination of the Osmania Engineering College, Hyderabad. Certain exemptions are granted to those who have prosecuted a course of study in part or whole for a corresponding examination of another University. Every candidate is examined in one of the following branches of Engineering, viz—Civil Engineering, Mechanical Engineering, Automobile Engineering, Electrical Engineering and Architecture. Subjects of examination in each branch of Engineering are :

(i) *Civil Engineering—*

1. Strength of Materials, 2. Theory of Structures,
3. Hydraulics, 4. Surveying, 5. Civil Engineering, 6. Drawing,
7. Estimating.

(ii) *Mechanical Engineering—*

1. Strength of Materials, 2. Mechanics of Machines, 3. Engineering Chemistry, 4. Mechanical Engineering, 5. Elementary Electrical Engineering, 6. Machine Drawing, 7. (i) Workshop Practice and (ii) *Viva Voce*.

(iii) *Automobile Engineering—*

1. Strength of Materials, 2. Mechanics of Machines, 3. Engineering Chemistry, 4. Automobile Engineering, 5. Electrical Equipment of Automobiles, 6. Machine Drawing, 7. (i) Workshop Practice and (ii) *Viva Voce*.

(iv) *Electrical Engineering—*

1. Strength of Materials, 2. Mechanics of Machines,
3. Electrical Engineering, 4. Prime Movers, 5. Machine Drawing,
6. (i) Workshop Practice and (ii) *Viva Voce*.

(v) *Architecture—*

1. Architectural Design, 2. History of Architecture,
3. Building Construction, 4. Theoretical Construction and
5. Sanitation, Hygiene and Acoustics.

Candidates who obtain the prescribed minimum number of marks in each subject and forty per cent in the aggregate are eligible for a pass. Those obtaining sixty per cent or more marks are placed in the first division, those obtaining less than sixty per cent but not less than fifty per cent are placed in the second division and all other successful examinees in the third division.

Examinations for the Diploma in Art

First Examination for the Diploma in Art

The course of study extends over one year after passing the High School Certificate Examination or any other recognised equivalent examination. The subjects of study and examination are (1) Drawing, (2) Art and (3) Commercial Art.

Candidates who obtain the prescribed number of marks in each subject and forty per cent in the aggregate are eligible for a pass. Those obtaining sixty per cent or more marks are placed in the first division, those obtaining less than sixty per cent but not less than fifty per cent are placed in the second division and all other successful examinees in the third division.

Final Examination for the Diploma in Art

The course of study extends over two years after passing the First Examination for the Diploma in Art. Every candidate for the Final Examination for the Diploma in Art shall be examined in the following subjects:—

- (i) Fine Art, (ii) Commercial Art and (iii) Photography.

In order to pass, a candidate must obtain forty per cent of the aggregate marks besides the prescribed minimum for each subject. Successful examinees obtaining sixty per cent or more of the aggregate marks are placed in the first division, those obtaining less than sixty per cent but not less than fifty per cent shall be placed in the second division and all other successful examinees, in the third division.

Courses of Study, Examinations and Degrees Leading to Professions

Law

Bachelor of Laws (LL.B.).—The course extends over two academic years and is open only to Bachelor of Arts or Science of this or of any other recognised University. The B. Com's of certain Universities and B.Sc.(Agr.) of Nagpur University are also eligible for admission to the course. There are two examinations, the Previous and the Final Examinations, at the end of the first and second years respectively. The following are the subjects for study and examination.

Previous Examination.—(1) Jurisprudence, (2) Constitutional Law, (3) Roman Law, (4) Law of Contracts, (5) Law of Evidence, (6) Criminal Law and Procedure, and (7) Law of Easements and Torts.

Final Examination.—(1) Hindu Law, (2) Mahomedan Law, (3) The Law of Land Tenures, (4) Law relating to Property, (5) Civil Procedure Code, (6) Principles of Equity, and (7) Special Acts.

One paper is set in each of the seven subjects, both in the Previous and Final Examinations. Candidates who obtain 33 per cent of the marks in each subject and 50 per cent or more in the aggregate are qualified for a pass at each of the examinations, those obtaining 70 per cent. or more of the aggregate marks obtainable at the two examinations taken together being placed in the First Class and other successful candidates in the Second Class.

Master of Laws (LL.M.).—The course is open to law graduates of this University and of other recognised Universities. At least two years' study under the direction of an approved person is necessary.

A candidate for the examination for the Degree of Master of Laws shall be examined in one of the following groups of papers, *viz.*—

A. Jurisprudence, B. Constitutional Law and International Law, C. Crime and Tort, D. Contracts including Mercantile Law, E. Hindu, Muhammadan and Other Personal Laws and F. Property.

Each paper shall be of three hours' duration and shall carry 100 marks,

The examination in the Groups A. Jurisprudence, B. Constitutional Law and International Law and C. Crime and Tort shall be held in alternate years commencing with the year 1943 and the examination in Groups D. Contracts including Mercantile Law, E. Hindu, Muhammadan and other Personal Laws and F. Property shall be held in alternate years commencing with the year 1944.

In order to be successful at the examination, an examinee shall obtain not less than 50 per cent marks in each of the papers. Examinees who obtain not less than 400 out of aggregate of 600 marks at the examination shall be placed in the first division and all other successful examinees in the second division.

Doctor of Laws (LL.D.).—The examination is open to those who have obtained the Master's Degree in Law of this University or any recognised University. Candidates should submit a thesis composed on some branch of Law or on the History or Philosophy of Law and if so desired, submit themselves for an oral examination with reference to the subject matter of the thesis.

Agriculture

Intermediate Science (Agr.) Examination—The Course of study extends over two years subsequent to passing the High School Certificate Examination or any other recognised equivalent examination and candidates are required to study and be examined in (1) Agriculture, (2) Mathematics and Agricultural Engineering, (3) Chemistry, (4) Botany, (5) English.

Candidates may, at their option, be examined in the "A" Certificate of the University Officers' Training Corps or in the "B" Certificate of the National Cadet Corps or G-I Certificate of the National Cadet Corps (Girls' Division) in lieu of English.

In order to pass, a candidate must obtain 40 per cent of the aggregate marks, besides the prescribed minimum for each subject and paper. Successful candidates obtaining 60 per cent or more of the aggregate marks are placed in the first division; those obtaining less than 60 per cent but not less than 48 per cent are placed in the second division; and all other successful candidates in the third division.

B.Sc. (Agr.) Examination.—Candidates who have passed the Intermediate Examination are eligible for admission to the course which extends over two academic years. The subjects

for study and examination are : (1) Agriculture, (2) Chemistry, (3) Botany and (4) Plant Pathology and Entomology.

In order to pass, a candidate must obtain in each subject and paper the minimum marks prescribed and in the aggregate not less than 40 per cent of the total marks obtainable. Successful candidates who gain 60 per cent or more of the aggregate marks shall be placed in the first division ; those who gain not less than 48 per cent of the aggregate marks in the second division ; and the rest in the third division.

In both the Intermediate (Agr.) and B.Sc. (Agr.) Examinations there are Practical Examinations in all subjects except English and students are required to pass them separately.

M.Sc. (Agr.).—Persons who have been admitted to the degree of Bachelor of Science (Agriculture) of this University or an equivalent recognised examination may offer themselves as candidates for the degree of Master of Science (Agriculture). Candidates have to submit published papers or thesis prepared under the direction of a supervisor approved by the Academic Council.

Ph.D. (Agriculture).—A person who has passed the examination for (1) the Degree of Master of Science or the degree of Bachelor of Science with Honours or (2) the Degree of Master of Science (Agriculture) of Nagpur University or (3) any other recognised equivalent examination or (4) the Diploma of the Associateship (a) of the Indian Institute of Science, Bangalore or (b) of the Imperial Agriculture Research Institute, New Delhi or (c) the Indian Dairy Institute, Bangalore, or (d) the Imperial Veterinary Institute, Izzatnagar, or (e) the Indian Institute of Sugar Technology, Kanpur, under certain conditions, may offer himself as a candidate for this degree. A candidate must prepare the thesis for the degree under a supervisor approved by the Academic Council.

Education

Bachelor of Teaching (B.T.).—The course extends over one academic year subsequent to the taking of a degree of this or any recognised University. The Examination is in two parts, the First part consisting of Principles and Practice of Education, Educational Psychology, Methods of Teaching particular subjects including Music and Home Science, School Organization and Hygiene, History of Education ; and the Second Part being

mainly a practical test in Teaching. In addition to this, a candidate must have completed satisfactorily the following courses :

Physical Training, Pedagogical Drawing and English Phonetics. Five papers will be set in Part I, one on each of the subjects selected.

Candidates who obtain 60 per cent or more in the first part and 80 per cent or more in the second part are placed in the First Class; those obtaining 50 per cent in the first part and 60 per cent or more in the second part, in the Second Class, those obtaining 32 per cent of the aggregate marks in the first part and 40 per cent in the second part in the Third Class.

M.Ed.—1. (a) Any graduate in Arts or Science of a recognised University who has been admitted to the degree of Bachelor of Teaching of Nagpur University or to a degree recognised by Nagpur University as equivalent thereto, may offer himself as a candidate for the degree of Master of Education.

(b) In exceptional cases, a person not eligible under the above clause may, on the recommendation of the Faculty of Education, be permitted by the Academic Council to offer himself as a candidate for the degree ; provided that—

- (i) he has passed the Examination for the M.A. or M.Sc., degree of the University or for the degree of another University recognised by the University as equivalent thereto, and has been admitted to degree ; and
- (ii) he holds a Diploma or a Certificate in Teaching which in the opinion of the Faculty of Education, is of a sufficiently high standard.

2. The examination shall consist of two parts as follows,
viz.—

Part I—A written examination in—

- (1) Philosophy and Principles of Education, (2) Educational Psychology, (3) and (4) Two of the following,
viz.—

- (i) Experimental Education, (ii) Educational Sociology
- (iii) History and present state of education in India
- (iv) Educational Organisation and Administration in India with special reference to Madhya Pradesh
- and (v) Comparative Study of present day Educational

Systems in the United Kingdom, U. S. A, and U. S. S. R.

Part II.—A thesis embodying the results of individual research in one of the subjects offered for Part I of the examination.

A student who has prosecuted a regular course of study for the M.Ed. course in the University Training College, or in any other institution admitted to the privileges of the University up to the M.Ed. standard, may be admitted to the examination in Part I after prosecuting such a course for a period of one academic year only and may submit his thesis for Part II after prosecuting research for a period of one academic year only.

3. One Paper shall be set in each of the subjects for Part I of the examination, the maximum marks for each paper being 100.

Diploma in Teaching.—The diploma course extends over two years and is open to those who have passed the High School Certificate Examination or an equivalent recognised examination.

The examination consists of two parts :—

Part I:

The following will be the papers in which the written examination will be held for the Dip.T. Examination.

Paper I.—Principles and Practice of Education,

Part II.—Educational Psychology,

Paper III.—School Organization and School Hygiene

Paper IV.—One of the following languages and its methodology :—Marathi, Hindi or Urdu.

Paper V.—English and its methodology,

Paper VI.—Special Methods of Teaching in one of the following subjects :—

(i) Mathematics and General Science,

(ii) Social Studies.

Part II:

Practical Teaching

The Practical Teaching of the candidates will be judged by—

- (1) their teaching during the course of training,
- (2) a final test—two lessons to be given of which only one should be a language.

Marks and classification shall be as follows:—

Part I:

Marks obtainable in each paper...	...	...	100
Aggregate marks obtainable	...	...	400

Part II:

Marks obtainable during the course, as assessed by the Principal of the Training College	100
Marks obtainable in the Final Test	100
Aggregate marks obtainable	200

In the examination in Part I, examinees obtaining not less than 360 marks shall be placed in the first division; those obtaining less than 360 marks but not less than 270 marks shall be placed in the second division; and those obtaining not less than 180 marks, in the third division.

In the examination in Part II, examinees obtaining not less than 160 marks shall be placed in the first division; those obtaining less than 160 marks but not less than 120 marks shall be placed in the second division; and those obtaining not less than 80 marks, in the third division.

In order to obtain the Diploma in Teaching an examinee must pass in Part I and in Part II.

Ph.D. in Education.—Candidates who have obtained the degree of Master of Education of Nagpur University or any other recognised equivalent degree are eligible for this degree. Also a candidate who has passed the M.A., or M.Sc., degree in first or second division in some subject other than Education and who has further passed the examination for the B.T. degree in first or second division both in theory and practice may, for special reasons, be permitted to offer himself as a candidate for the degree. Every candidate shall prepare his thesis under the guidance of a supervisor to be appointed by the Academic Council,

Courses of Study and Examination in the Faculty of Medicine

First M.B.B.S.—This examination was held for the first time by the University in October 1948, for which courses have been provided in the Medical College established in July 1946. For admission to the examination candidates must have attained the age of seventeen years and must have attended a regular course

of study in an affiliated Medical College at the end of which they will be examined in (A) Human Anatomy and Embryology including Normal Histology (2 Papers and oral and practical) and (B) Human Physiology (2 papers and oral and practical).

Final M.B.B.S.—Part I.—This examination was held for the first time by the University in October 1949. For admission to the examination, candidates must have passed the First M.B.B.S. Examination or any other recognised equivalent examination and thereafter must have undergone a regular course of study for two years at the end of which they are examined in (1) Pharmacology, (2) Forensic Medicine and Toxicology, (3) Hygiene and Public Health and (4) Pathology and Bacteriology.

Final M.B.B.S.—Part II.—This examination was held for the first time by the University in October 1951. For admission to the examination, candidates must have passed the First M.B.B.S. examination and since passing that examination undergone a regular course of study for not less than three years in the subject of study prescribed for Part II of the examination and have passed in Part I of the Examination at least six months previously at the end of which they are examined in (1) Medicine, (2) Surgery, (3) Midwifery and Gynaecology and (4) Ophthalmology. In order to be successful, candidates must obtain the prescribed minimum in each subject and 50 per cent in the aggregate. A successful candidate admitted to the Examination for the first time who secures 75 per cent marks in a subject is declared successful with distinction in that subject.

A condensed M.B.B.S. course has been introduced for Licentiates, with effect from the Academic year 1952-53. Candidates who have passed the Final L. M. P. Examination in the first attempt, the Intermediate Examination in Science with Physics, Chemistry and Biology and High School Certificate Examination of the Board of Secondary Education, Madhya Pradesh, or other equivalent examination, with Mathematics as one of the subjects, are admitted to the two-year condensed M.B.B.S. course. Candidates who are admitted to this course are exempted from passing the First M.B.B.S. Examination, but they will be required to pass a college test in Anatomy and Physiology to the satisfaction of the Dean of the Medical College.

A Licentiate in Tropical Medicine of Calcutta or a holder of the Diploma in Tropical Medicine and Hygiene or Gynaeco-

logy and Obstetrics of Bombay will be allowed to complete the condensed M.B.B.S. course within eighteen months.

Courses of study and Examinations in the Faculty of Commerce

Intermediate Examination in Commerce and Bachelor of Commerce Examination.—The course for each of the Intermediate examination in Commerce and Bachelor of Commerce examination will extend over a period of two years. Every candidate for the Intermediate Examination in Commerce is examined in (1) English ; (2) Group—(i) Economics, (ii) Business Methods and Elementary Banking ; (3) Sales Organization and Service ; (4) Book-keeping and Accountancy ; (5) Commercial Geography ; (6) Composition in one of the following languages, viz., Hindi, Marathi, Urdu, Bengali, Telugu, Gujarati and Oriya.

The subjects for study for the degree of B.Com. are as follows : (1) Group—(i) English, (ii) Secretarial Practice ; (2) Money, Banking and Foreign Exchange ; (3) Statistics ; (4) Business Organisation ; (5) Indian Mercantile and Industrial Law ; (6) Modern Economic Development of India and (7) one of the following subjects, viz.—(a) Advanced Accounting and Auditing ; (b) Advanced Banking ; (c) Indian Cotton Industry ; (d) Insurance ; and (8) *Viva Voce*.

Successful examinees obtaining sixty per cent or more of the aggregate marks are placed in the first division those obtaining less than sixty per cent but not less than forty-eight per cent in the second division ; and all other successful examinees obtaining less than forty-eight per cent but not less than forty per cent in the third division.

Master of Commerce.—The course extends over two academic years subsequent to passing the B.Com. Examination of this University or any recognised equivalent examination of another University. Every candidate for the examination shall be examined in (a) two compulsory papers—(i) Modern Industrial and Commercial Development (U. K., U. S. A., U. S. S. R., Germany and Japan), (ii) Organisation of markets ; (b) any two of the following papers—(i) Transport, (ii) Money Markets and Foreign Exchange, (iii) State and Economic Welfare, (iv) Corporation Finance, (v) Co-operation, (vi) Labour and Urban Problems, (vii) Applied Statistics, (viii) Cost Accounting and (ix) Income Tax Law and Practice ; (c) three papers on any one of the following subjects of special study.—(i) Principles and

Practice of Economic Planning, (ii) Industrial and Commercial Development of India, (iii) Rural Economic Problems and (d) *Viva Voce*. A thesis may be offered in lieu of the three papers on a subject of special study.

Successful examinees obtaining sixty per cent or more of the aggregate marks are placed in the first division, those obtaining less than sixty per cent but not less than forty-eight per cent in the Second Division and all other successful examinees obtaining less than forty-eight per cent but not less than thirty-six per cent in the third division.

Examination Fees

(a) Faculties of Arts and Science.—

	Rs.
1. Intermediate Examination with Arts subjects	30
2. Intermediate Examination with Science Subjects	35
3. B.A. (Pass) Examination	40
4. B.Sc. (Pass) Examination	45
5. M.A. Examination	70
6. (a) M.Sc. Examination in Pure Mathematics or Applied Mathematics	70
(b) M.Sc., Examination in other subjects	75
7.*M.A. Examination	40
8.*M.Sc. Examination	42
9. Ph.D. Examination (Arts)	175
10. D.Litt. Examination	200
10.-A. Ph.D. Examination (Science)—	
for a Thesis	175
for a thesis in a revised form	100
11. D.Sc. Examination (Science)	200
12. B.A. (Hons.) Examination: For a major subject Rs. 70 and Rs. 20 for each minor subject	
13. B.Sc. (Hons.) Examination: For the major subject, Pure Mathematics or Applied Mathematics Rs. 70, for other major subjects Rs. 75 and Rs. 22-8-0 for each minor subject	

*For those who have passed the Previous Examination before 1935.

14. The Junior Diploma Examination in Oriental Learning	5
15. The Senior Diploma Examination in Oriental Learning	8
16. The Higher Diploma Examination in Oriental Learning	10
17. Additional Fee for re-admission to an examination in Oriental Learning	2
18. First Examination for the Diploma in Engineering	35
19. Final Examination for the Diploma in Engineering	45
20. First Examination for Diploma in Art	30
21. Final Examination for Diploma in Art	35
22. Examination for the Degree of Bachelor of Science (Technology)	60
23. M.Sc. (Tech.) Examination—	
(1) For Thesis	100
(2) For Thesis in a revised form... ..	60
24. Examination for the Diploma in Co-operation	40
25. Diploma in Journalism	50
26. Certificate in Journalism	40
27. Diploma in Local Self-Government	40
(b) Faculty of Law—	
28. LL.B. Examination (Previous)	35
29. LL.B. Examination (Final)... ..	40
30. LL.M. Examination*	200
31. LL.D. Examination	200
(c) Faculty of Education—	
32. B.T. Examination	40
33. Dip.T. Examination	25
34. M.Ed. Examination	100
35. Ph.D. Examination	175
(d) Faculty of Agriculture—	
36. Intermediate Examination in Science (Agriculture)	35
37. B.Sc.(Agr.) Examination	45
38. M.Sc.(Agr.) Examination	100
39. Ph.D. Examination—	
(i) For thesis	175
(ii) For thesis in a revised form	100

*In the case of applicants who have passed Part I of the examination in or before 1942, the fee is Rs. 100.

(e) Faculty of Medicine—

40. First M.B.B.S.—

(i) For the whole examination	...	40
(ii) For examination in one subject	...	20
41. Final M.B.B.S. Examination Part I	...	60
Part II	...	60
In one subject		20

(f) Faculty of Commerce—

42. Intermediate Examination in Commerce	...	30
43. B.Com. Examination	... ..	40
44. M.Com. Examination	... ..	60
45. Ph.D.	... ..	175

OSMANIA UNIVERSITY

Introductory

The Osmania University, established by a Charter in 1918, is the first attempt in India to impart education in an Indian Language, English being a compulsory second language. It has ten Faculties, namely, Agriculture, Arts, Commerce, Education, Engineering, Law, Medicine, Religion and Culture, Science and Veterinary Science. All the Faculties except Medicine, are housed in buildings within the University campus which covers an area of nearly 2,000 acres, situated four miles east of the City of Hyderabad.

The ultimate aim of the University has been laid down as the adoption of the Federal Language as the medium of instruction. In the transitory stage, the medium of instruction in the professional Faculties is English and in Arts and Science there are parallel classes in English and Hindustani media the latter with both the Persian and Nagri scripts. Just as English is recognised as a medium, the regional languages (Telugu, Marathi and Kannada) are also permissible as media and the University may open parallel classes in those media if and when the requisite number of qualified staff, the text-books and the finances are available.

The study of a Regional or an allied classical language has been made compulsory up to the first degree stage. Up to the Intermediate, the study of a Regional or an Allied classical language is compulsory. The Faculty of Theology has been replaced by the Faculty of Religion and Culture, which includes the study of comparative religion also.

Besides six University Colleges (including 4 professional Colleges) there are two constituent degree Colleges of Arts and Science, one of these being a co-educational institution teaching through the medium of English and the other a Women's College providing both English and Hindustani media. There are seven Intermediate constituent colleges including three in the three linguistic areas of Hyderabad State. There is also a constituent Law College and five affiliated degree colleges including a Medical College. Besides these, there are two Evening Colleges one Degree and one Intermediate, meant for

those in employment. The Degree of M.Com. has been instituted in the Faculty of Commerce with effect from the Academic Year 1952-53.

There are altogether 11,160 students studying in the University.

The Department of Translation and Publication was founded about a year before the establishment of the University in order to provide the latter with text-books for different classes. Altogether 530 books were translated and printed in Arts, Engineering, Medicine, Science and other subjects. The work of Translation and Publication which was in Urdu formerly, is now being done in Hindustani under certain principles laid down by a Board established for the purpose. One of the principles is to retain Western notations, numerals and even punctuations, and another is to retain international scientific and technical terminology or terminology which is univesally accepted or used.

The University is now both a teaching and affiliating University. It has five affiliated colleges including a Medical College.

A new Department called the Department of Students has been opened in the University with a senior member of the staff in-charge as Head of the Department, to deal with all students' problems including discipline.

Constitution of the University

Though the University is wholly financed by the Government, it enjoys administrative autonomy, its Council enjoying the powers of the Government in respect of all University matters. The Head of the Government of the State is *Ex-officio* Chancellor. The Vice-Chancellor is a whole-time officer appointed by the Government and generally holds office for a term of three years. The Senate is on the model of most of the Indian Universities with fair representation of the staff and of public elements. There are also the Finance Committee and the Academic Council which are similarly broad-based.

OFFICERS OF THE UNIVERSITY

Patron :

His Exalted Highness the Nizam, Nawab Mir Osman Ali Khan, G.C.S.I., G.B.E., Raj Paramukh.

OSMANIA

Chancellor :

Hon'ble Shri Ramakrishna Rao, B., Chief Minister.

Vice-Chancellor :

Dr. S. Bhagavantam, M.Sc. Hons., D.Sc., F.I.A.Sc.

Registrar :

Dr. I. Topa, D.Phill (Freiburg).

Deputy Registrar :

Shri Syed Chand.

Head, Department of Students :

Shri K. S. Raghavan, B.A., B.T. (Madr.)

Asst. Registrar (Administration) :

Shri Zulfiqar Ali Khan, B.A. (Alig.), S.A.S. (Bombay.)

Asst. Registrar (Academic) :

Shri N. V. K. Murthy B.A.Hons. (Mysore).

Controller of Examinations :

Shri Mohd. Ahmed Osmani, M.A.(Alig.).

P.A. to Vice-Chancellor :

Shri L. B. Deshpande, B.Sc. (Madr.).

Librarian :

Shri Masood Yazdani, B.A., Dip-L.Sc.(Madr.)

Audit Officer :

Shri Hafiz Mohd. Ahmed Siddiqi, Higher and Lower
Accounts.

Resident Medical Officer :

Dr. P. L. Narayan Rao, L.M.P.

Asst. Engineer

Shri N. V. Joshi, B.E.

Warden University Hostels :

Shri P. V. R. Sebastian, B.A. (Madr.)

Chief Sports and Welfare Officer :

Shri Ghouse Mohd. Khan.

LIST OF MEMBERS, UNIVERSITY COUNCIL—1952

1. Dr. S. Bhagavantam, Vice-Chancellor.
2. Sri T. Suryanarayana, Director, Public Instruction.
3. Sri C. Damodhar Reddy, Financial Secretary, Honorary Treasurer of the University.
4. Dr. S. Husain, Principal, Nizam College.
5. Prof. M. S. Doraiswami, Principal, College of Arts.
6. Major-General S. L. Bhatia, I.M.S., Director, Medical and Health Department and Dean, Faculty of Medicine.
7. Miss G. M. Linnell, Principal, Women's College.
8. Dr. N. Ram Lal, Principal, City College.
9. Hon'ble Sri K. S. Vaidya, Speaker, Legislative Assembly.
10. Hon'ble Dr. G. S. Melkote, Finance Minister, Government of Hyderabad.
11. Sri L. N. Gupta, Secretary to Government, Education Department.
12. Dr. S. Husain Zaheer, Director, Central Laboratories.
13. Prof. S. Fazle Haq, Nizam College.

UNIVERSITY COLLEGE OF ARTS AND COMMERCE

Principal—Doraiswami, M.S., M.A., L.T. Mad., B.A. Hons. Oxon.

Arabic

Qutabuddin, Q., B.A. Egypt, Professor.
Khan, A.M., M.A.Osm., Ph.D. Camb., Reader.
1 Lecturer.

Economics

Qadir, M.A., M.A.(Mad.), B.Sc.(Econ.) Lond., Professor.
 Husain, S. A., M.A., LL.B. Luck., L.T. Alld., Reader.
 One Lecturer.

English

Doraiswami, M.S., M.A., L.T.Mad., B.A. Hons. Oxon.,
 Professor.
 11 Lecturers.

Geography

Ahmed, S., B.A., B.T. Alig., M.A. Edin., Lecturer.
 1 other Lecturer.

Hindi

Vidyalankar, Pandit, V., Lecturer.
 2 other lecturers.

History

Khan, Y. H., D.Litt. Paris, Professor.
 Muneeruddin, K., M.A., Reader.
 2 Lecturer.

Kannada

Bhimsen Rao, D.K., M.A. Mys., Reader.
 2 Lecturers.

Marathi

Bhusari, R. M., M.A. Nag., M.A. Calc., LL.B., Reader.
 2 Lecturers.

Mathematics

Venkatachari, V. P., M.A. Osm., Ph.D. Lond., Professor.
 Mohiuddin, N. K., M.A. Mad., B.T. Alig., Reader.
 Patwari, V. N., M.A. Mad., B.A. Bom., Reader.
 4 Lecturers.

Philosophy

Valiuddin, M., M.A., Ph.D. Lond., Professor.
 Lal, S. M., M.A. Alig., Reader.
 Salahuddin, M., M.A. Dacca., Reader.
 Vahiduddin, S., Ph.D., Marburg, Reader.

Political Science

Siddiqi, A.M., M.A., LL.B., Reader.
 3 Lecturers.

Persian

Nizamuddin, M., Ph.D. Cantab., Professor.
 Kalimullah, S. Q., M.A., LL.B., Ph.D. Lond., Reader.
 Farooqi, L.A., M.A., LL.B., Reader.

Sanskrit

Sharma, A., M.A. Alig., Ph.D. Munich., Professor.
 1 Lecturer.

Sociology

Hasan, J., Ph.D. Heid., Professor.
 2 Lecturers.

Telugu

Laxmiranjanam, K., M.A. Madr., Lecturer.
 2 other Lecturers.

Urdu

Mohammad, S., M.A., Osm., Reader.
 Sarwari, A. Q., M.A., LL.B., Reader.
 Qateel, A. H., M.A., Ph.D.

Commerce

Khan, I. H., B.Com. Lond., Reader.
 3 Lecturers.

Religion and Culture

Ahmed, Z., M.A., D.Litt. Cairo, Reader.
 Ahmed, F., Reader.
 2 Lecturers.

UNIVERSITY COLLEGE OF SCIENCE

Principal—Sayeeduddin, M., B.Sc. Bom. M.A. Edin.,
 F.R.M.S.F.L.S.Lond.

Botany

Sayeeduddin, M., B.Sc., Bom. M.A. Edin., F.R.M.S.F.L.S.
 Lond., Professor.
 Salam, A., M.Sc., Ph.D. Belf., Reader.
 8 Lecturers.

Chemistry

Subba Rao, V. N., D.Sc. Andhra, Ph.D. Lond., Professor.
 Taher, N. A., M.Sc., Ph.D., Lond., Reader.
 Rahman, M. K., M.Sc., Reader;
 13 Lecturers.

Chemical Technology

Zaheer, S. H., M.A. Oxon., Ph.D. Heidel., Professor.
 Kulkarni, B. S., Ph.D. Bom., Reader.
 Ali, A., M.Sc., Ill., Reader.
 8 Lecturers.

Geology

Ahmeduddin, S. M., B.A., B.Sc. Manch., F.G.S., F.L.S.,
 Reader.

Physics

Bhagavantam, S., M.Sc. (Hons.), D.Sc., F.I.A.Sc.,
 Professor.
 13 Lecturers.

Zoology

Singh, R. S. N., M.Sc. Alig., Ph.D. Lond., Reader.
 Khan, O., Ph.D. Lond., M.Sc., Reader.
 7 Lecturers.

UNIVERSITY COLLEGE OF ENGINEERING

Principal.—Ansari, Z., B.Sc. Manch., A.M.I.E. (India).

Civil Engineering

Athar, M., B.Sc. Durham., G.E.M.I.E. (India), Professor.
 Hafeezullah, M., B.Sc. Alig., B.Sc. Engg. Rangoon,
 A.M.I.E. (India), Reader.
 Rasheed, M.A., B.A., B.E. Osm.
 5 Lecturers.

Electrical Engineering

Gadgil, V. M., B.Sc. Madr., B.Sc. Hons. Lond., A.C.G.I.
 Lond., A.M.I.E. (India), Professor.

Mechanical Engineering

Ali, A., B.Sc. Madr., B.Sc. Hons. Lond., A.M.I. Mech. E.,
 A.M.I.E., G.I.F.E., Diploma in Adm. for Engineers,
 Professor.
 Ramanujacharya, K., B.Sc. Engg. Banares, A.M.I.E.
 (India), Reader.
 1 Lecturer.

Overseer Class

Khan, M. M., C.E. Madr., Lecturer,
 1 other Lecturer.

UNIVERSITY COLLEGE OF AGRICULTURE

Asim Anir Ali, B.Ag. Bom., Ph.D. Corn.

Agricultural Chemistry

Rao, V., Ph.D. Wis., Lecturer

Agricultural Engineering

Satyanarayan Rao, T., B.Sc. Ag., Bom., Lecturer.

Agronomy

Baquer Husain, M., M.A. Edin. B.Sc. Ag. Edin., B.Sc. Agri. Econs. Edin., T.C. Dublin, Post-Graduate's Certificate Social Science (Edin.), Professor.

2 Lecturers.

Animal Husbandry

Karnani, B.T., Ph.D. (U.S.A.), Lecturer.

Farm

Khan, S., B.Sc. Agri. Nag., B.Sc. Osm., Lecturer & Supdt. Farm.

Plant Breeding Entomology

Razvi, H. A., B.Ag. Bom., Ph.D. Wales, Reader.

2 Lecturers.

UNIVERSITY COLLEGE OF VETERINARY SCIENCE & ANIMAL HUSBANDRY

Principal—Major M. Habeeb Khan, M.R.C.V.S. Lond.

Anatomy

Kanan, C. V., G.B.V.G. Bom., Lecturer.

1 other Lecturer.

Animal Husbandry

Nair, K.S., G.B.V.G., M.R.C.V.S., T.V.M. Edin., Professor.

2 Lecturers.

Pathology & Bacteriology

Ramchander Rao, V., G.M.V.C. Madr., P.G. (Mukteshwar), Lecturer.

1 other Lecturer.

CAUTION:

**Image 877 is NO longer
present in scan-order!**

**Maybe it was deleted from
outside of BCS-2 ?**

LAW COLLEGE

Principal—Mirza, H.A., Bar-at-law.

1. Mirza, H. A., Bar-at-Law, Professor.
2. Moosavi, A. A., B.A. Hons. Bom., LL.B. Alig., Reader.
3. Wahidullah Khan, B.Sc., LL.M. Osm., Reader.

CITY INTERMEDIATE SCIENCE COLLEGE

Principal—Dr. N. Ram Lal, M.Sc. Alig., Ph.D. Lond.

CHADERGHAT INTERMEDIATE ARTS COLLEGE

Principal—Dr. S. M. Qadri Zore, M.A., Ph.D. Lond.

SAIFABAD INTERMEDIATE SCIENCE COLLEGE

Principal—Syed Mohammad Ali Khan, B.Sc. Hons. Lond.,
A.R.C.S.

MAHBOOB INTERMEDIATE ARTS & SCIENCE COLLEGE

Postal address—Secunderabad Deccan

Principal—Dr. J. C. Kameshwar Rao, D.Sc. (Cal.)

INTERMEDIATE ARTS & SCIENCE COLLEGE

Postal address—Aurangabad (Deccan)

Principal—Shri G. N. Thatte, M.A. (Alig.)

INTERMEDIATE ARTS & SCIENCE COLLEGE

Postal address—Gulbarga (Deccan)

Principal—Shri S. Krishna Rao, B.Sc. (Mad.)

INTERMEDIATE ARTS AND SCIENCE COLLEGE

Postal address—Warangal Deccan

Principal—Ram Narsu, B.V., M.A., B.Ed. Mad.

MEDICAL COLLEGE

Postal address—Afzal Gunj, Hyderabad Deccan

Principal—Dr. M. K. Pandit, M.B.B.S. Bom., M.R.C.P. Edin.,
D.T.M. L'Pool., T.D.D. Wales., F.R.F.P. & S. Glass.

Anatomy

1. Sahgal, S. P., M.B.B.S. Bom., Professor.
2. Husain, S. M., B.Sc. Alld., M.B.B.S. Luck., Reader.
3. Mohammad Husain, Y. A., M.B.B.S., Panjab, Reader.
- 6 Lecturers.

Medicine

1. Nawaz, M. S., M.B.B.S. Punjab, M.R.C.P. Edin.,
Professor.
- 3 Lecturers.

Midwifery

1. Reporter, E. S., M.B.B.S. Osm., Lecturer.
2. Shrimati Kapoor, V. D., M.B.B.S. Madr., D.G.O. Mad.
Lecturer.

Opthalmology

1. Khan, A. W., M.B.B.S. Osm., Lecturer.

Pathology

1. Siddiqi, N.A., M.B.B.S. Luck., Reader.
- 5 Lecturers.

Pharmacology

1. Ansari, M. Y., M.B.B.S. Osm., L.R.C.P. Lond.,
M.R.C.P. Eng., Ph.D. Edin., Professor.
- 3 Lecturers.

Physiology

1. Rahman, S. A., M.D., D.T.M. & H. Edin., Professor.
2. Abhyankar, R. N., M.B.B.S. Bom., Reader.
3. Dastagir, G., M.B.B.S. Punjab Reader.
4. Zaidi, M. A., M.B.B.S. Osm., Reader.
5. Mohiuddin, G., B.A. Osm., M.Sc. Alig., Reader.
6. Baig, M.H.A., M.B.B.S. Osm., Reader.

Surgery

1. Naidu, I. C., M.B.B.S., M.S. Andhra, Professor.
- 2 Lecturers.

VIVEK VARDHANI COLLEGE*Postal address*—Gauligooda, Hyderabad Deccan*Principal*—Dr. S. D. Satwalekar.**BADRUKA COLLEGE OF COMMERCE***Postal address*—Gadwal Palace, Nampalli Station Road,
Hyderabad Deccan*Principal*—K. Anantha Ram, M.A.**PEOPLE'S COLLEGE***Postal address*—People's College, Nanded (Deccan)*Principal*—S. S. Barlingay, M.A.**PEOPLE'S EDUCATION SOCIETY'S COLLEGE***Postal address*—Cantonment, Aurangabad (Deccan)*Principal*—M. B. Chitnis, M.A.**Statement showing Men and Women Students in all Colleges of the Osmania University**

<i>Name of College</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
1. University College of Arts and Commerce ...	885	69	954
2. University College of Agriculture ...	106	...	106
3. University College of Education ...	98	22	120
4. University College of Engineering ...	495	...	495
5. University College of Science ...	767	23	790
6. University College of Vet. Science ...	131	...	131
7. Nizam College ...	1,167	131	1,298
8. Women's College ...	...	825	825
9. Law College ...	593	5	598
10. City Intermediate Science College ...	908	...	908
11. Saifabad Inter. Science College ...	552	...	552

<i>Name of College</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
12. Chaderghat Inter. Arts College	839	...	839
13. Evening College, Hyderabad ...	979	6	985
14. Evening College, Secunderabad	157	3	160
15. Mahboob Inter. Arts & Science College	386	16	402
16. Intermediate Arts & Science College, Aurangabad ...	238	3	241
17. Intermediate Arts & Science College, Gulbarga	291	5	296
18. Intermediate Arts & Science, Warangal	375	...	375
19. Medical College	333	100	433
20. Vivek Vardhini College, Hyderabad	206	...	206
21. Badruka College of Commerce, Hyderabad	66	...	66
22. P. E. S. College, Aurangabad	263	16	279
23. People's College, Nanded ...	160	...	160
Total ...	9,936	1,224	11,160

Estimated income of the University, 1951-52.

<i>Item of Income</i>	<i>Budget estimate</i>
<i>Receipts from—</i>	
(1) Fees:—	
(a) Tuition Fees	6,00,000
(b) Examination Fee	3,00,000
(c) Fee for Residence	1,00,000
(d) Other fees	80,000
(2) Sales of Publication and Forms	20,000
(3) Printing	40,000
(4) Buses	25,000
(5) Agricultural Farm Lands and sale of Pasture	19,000
(6) Veterinary Dairy	6,000
(7) Rent of Houses	15,000
(8) Electricity & Water Supply	20,000
	<u>12,25,000</u>

<i>Item of Income</i>	<i>Budget estimate</i>
(9) Grant from Government	60,00,000
	<hr/>
(10) Deficit of Rs. 84,417 drawn from Savings	72,25,000
	<hr/>
	84,417
	<hr/>
	73,09,417
	<hr/>

Budget abstract of estimated expenditure of the University for the year 1951-52

The estimated expenditure of the University for the year 1951-52 is Rs. 73,09,417, details of which are as follows :—

<i>Institution</i>	<i>Amount</i>
1. University—	Rs.
(a) Office	3,56,822
(b) Academic	4,79,097
(c) Library	1,19,574
(d) Night Guards	7,014
(e) Department of Students	1,84,918
(f) Hostels and Dining Halls	1,60,397
2. College of Arts	5,99,566
3. College of Law... ..	83,809
4. Faculty of Commerce	32,076
5. Faculty of Religion & Culture	41,880
6. College of Science	8,18,408
7. Nizam College	6,70,056
8. Women's College... ..	4,17,860
9. Medical College	5,52,702
10. Engineering College	3,25,066
11. Overseer Class	41,033
12. College of Agriculture	1,99,878
13. College of Veterinary Science	1,93,332
14. College of Education	1,28,319
15. Nizamiah Observatory	62,022
16. Department of Translation and Publication and University Press	1,92,944
17. City Intermediate Science College	3,60,397
18. Saifabad Inter. Science College	2,85,390
19. Chaderghat Inter. Arts College	2,10,451
20. Mahboob Inter. Arts & Science College	1,80,212

<i>Institution</i>	<i>Amount</i>
	Rs.
21. Intermediate College, Aurangabad ...	1,54,705
22. Intermediate College, Gulbarga ...	1,57,375
23. Intermediate College, Warrangal ...	1,47,462
24. Evening College, Hyderabad ...	98,116
25. Evening College, Secunderabad ...	42,536
	<hr/> 73,09,417

(O. S. Rs. 116-10-8 are equal to I. G. Rs. 100.)

Number of students in the University in the Academic Year 1951-52.

	<i>Men</i>	<i>Women</i>	<i>Total</i>
1. Faculty of Arts ...	4,295	631	4,926
2. Faculty of Commerce ...	801	1	802
3. Faculty of Science ...	3,084	465	3,549
4. Faculty of Agriculture ...	106	...	106
5. Faculty of Vet. Science ...	131	...	131
6. Faculty of Medicine ...	333	100	433
7. Faculty of Education ...	98	22	120
8. Faculty of Engineering ...	495	...	495
9. Faculty of Law ...	593	5	598
Total ...	<hr/> 9,936	<hr/> 1,224	<hr/> 11,160

Results of the Osmania University Examinations held in April 1951 and September 1951

	<i>No. appeared</i>			<i>No. passed</i>		
	<i>Men</i>	<i>Women</i>	<i>Total</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
1. Intermediate Arts	1,622	170	1,792	684	88	772
	623	56	679	134	12	146
2. Intermediate Science	1,733	149	1,882	618	86	704
	632	42	674	150	15	165
3. B.A. ...	497	94	591	233	67	300
	197	26	223	49	7	56

			No. appeared			No. passed		
			Men	Women	Total	Men	Women	Total
4. B.Sc.	...	...	422 249	25 8	447 257	96 47	13 1	109 48
5. M.A.	...	...	42 5	12 3	54 8	36 5	12 3	48 8
6. M.Sc.	...	...	29 1	4 ...	33 1	26 1	4 ...	30 1
7. M.Sc.(Tech.)	...	...	10 ...	...	10 ...	8 ...	...	8 ...
8. B.Com.	...	...	151 91	1 ...	152 91	62 32	1 ...	63 32
9. LL.B.	...	...	101 39	1 ...	102 39	53 30	1 ...	54 30
10. LL.M.	...	...	12 6	...	12 6	4 4	...	4 4
11. M.B.B.S.	...	...	55 48	8 9	63 57	21 31	4 3	25 34
12. B.E. (Civil)	...	...	41 33	...	41 33	25 15	...	25 15
13. B.E. (Mechanical)	...	...	9 18	...	9 18	4 12	...	4 12
14. B.E. (Electr.)	...	...	8 6	...	8 6	6 3	...	6 3
15. B.Ed.	...	...	70 3	29 5	99 8	63 ...	20 3	83 3
16. M.Ed.	...	...	9	3	12	9	3	12
17. B.Sc. Agr.	...	...	36 15	...	36 15	24 9	...	24 9
18. B.V.Sc.	...	...	9 5	...	9 5	1 4	...	1 4
19. Ph.D.	...	...	1	...	1	1	...	1
20. Overseer Certificate	...	...	160 115	...	160 115	45 49	...	45 49

Library, Laboratories, etc.

Total volumes in the library—1,08,250 (excluding Manuscripts.)

English books	...	...	...	...	31,744
Urdu, Persian and Arabic	...	...	...	...	15,986
Oriental	...	...	...	...	14,803
Gift	...	...	...	...	15,253
Salar Jung	...	...	...	...	30,464
Manuscripts	...	...	...	...	3,304
Palm-Leaf	...	...	...	...	1,244

Grand Total	1,12,798
-------------	-----	-----	-----	-----	----------

Besides the University Library, every College has its own Library and there are Seminar Libraries attached to each Department of study.

The University has well-equipped Physical Chemical and Geological Laboratories, besides a well-equipped Chemical Technology Laboratory, Zoological Museum and Botanical Garden.

(to be incorporated in substitution of the previous statement on Pages 863 and 64 of the Proof)

Number of Students Passed the University Examinations in the Academic Year, April 1952 & September 1952

Number Appeared.				Number Passed.			
	Men	Women	Total	Men	Women	Total	
1. Inter (Arts)							
Annual	: 1,918	187	2,105	680	76	756	
Supplementary	: 823	79	902	275	42	317	
2. Inter (Science)							
A	: 1,893	227	2,120	617	111	728	
S	: 775	108	883	309	53	362	
3. B.A.	A : 601	101	702	226	51	277	
	S : 280	33	313	103	15	118	
4. B.Sc.	A : 534	47	581	150	15	165	
	S : 270	18	288	75	4	79	
5. M.A.	A : 62	18	80	54	17	71	
	S : 6	...	6	6	...	6	
6. M.Sc.	A : 33	7	40	33	6	39	
	S : 1	...	1	1	...	1	
7. M.Sc. (Tech.)	A : 13	...	13	11	...	11	
	S : 1	...	1	1	...	1	

Number Appeared		Men Women Total			Number Passed		
					Men	Women	Total
8. B.Com.	A :	251	1	252	105	...	105
	S :	128	1	129	54	...	54
9. LL.B.	A :	149	...	149	112	...	112
	S :	23	...	23	16	...	16
10. LL.M.	A :	4	...	4	...	...	...
	S :	1	...	1	1	...	1
11. M.B.B.S.	A :	35	10	45	20	3	21
	S :	22	12	34	14	4	18
12. B.E. (Civil)	A :	60	...	60	43	...	43
	S :	18	...	18	13	...	13
13. B.E. (Mech.)	A :	21	...	21	13	...	13
	S :	9	...	9	7	...	7
14. B.E. (Elect.)	A :	12	...	12	9	...	9
	S :	4	...	4	3	...	3
15. B. Ed.	A :	95	20	115	75	16	91
	S :	12	2	14	9	1	10
16. M. Ed.	A :	5	2	7	3	2	5
	S :	2	...	2	1	...	1
17. B.Sc. (Agri.)	A :	41	...	41	26	...	26
	S :	14	...	14	14	...	14
18. B.V.Sc.	A :	20	...	20	8	...	8
	S :	12	...	12	6	...	6
19. Ph.D.	A :	1	...	1	1	...	1
	S :	...	...	...	...	...	...
20. Overseer Certificate.	A :	79	...	79	58	...	58
	S :	30	...	30	30	...	30

In connection with the Government of India scholarships for student from South and South East Asian Countries for studies in India under the Technical Co-operation Scheme, the following number of seats have been reserved for such students :—

University College of Engineering :

Degree Course :

Civil Engineering	...	...	...	1
Mechanical Engineering	...	...	...	1
Diploma course in Civil Engineering	...	...	...	1

University College of Science :

M.Sc. (Previous) Class

Chemical Engineering	...	...	...	1
Oil Technology	...	...	...	1
Ceramics	...	...	...	1

Physics	...	...	...	...	...	1
Botany	...	...	...	...	...	1
Zoology	...	...	...	...	...	1

<i>Post M.Sc. Research:</i>						
Physics	...	...	...	...	...	1

Scholarships and Medals

<i>Faculty of Arts:</i>						
Intermediate	...	45	Scholarships of Rs. 20 each tenable for 20 months awarded to the best students in order of merit in the H. S. C. Examination.			
B.A.	...	...	25 scholarships of Rs. 25 each tenable for 20 months awarded to the best students in order of merit in the Intermediate (Arts) Examination.			
M.A. (Previous)	...	12	scholarships of Rs. 30 each tenable for 10 months awarded to the best students in order of merit in the B.A. Examination.			
M.A. (Final)	...	12	scholarships of Rs. 30 each tenable for 10 months awarded to the best students in order of merit in the M.A. (Previous) examination.			
<i>Faculty of Science:</i>						
Intermediate	...	45	scholarships of Rs. 20 each tenable for 20 months awarded to the best students in order of merit in the H. S. C. Examination.			
B.Sc.	...	...	25 scholarships of Rs. 25 each tenable for 20 months awarded to the best students in order of merit in the Intermediate (Science) Examination.			
M.Sc. (Previous)	...	12	scholarships of Rs. 30 each tenable for 10 months awarded to the best students in order of merit in the B.Sc. examination.			
M.Sc. (Final)	...	12	scholarships of Rs. 30 each tenable for 10 months awarded to the best students in order of merit in the M.Sc. (Previous) examination,			

Faculty of Commerce :

B.Com. ... 5 scholarships of Rs. 25 each tenable for 20 months awarded to the best students in order of merit in the Intermediate (Arts or Commerce) examination.

Faculty in Engineering :

B.E. I Year ... 3 scholarships of Rs. 30 each tenable for 10 months awarded to the first three best students in order of merit in the Intermediate (Science) Examination.

B.E. II Year ... 3 scholarships of Rs. 30 each tenable for 10 months awarded to the first three best students in the B.E. I Examination.

B.E. III Year ... 3 scholarships of Rs. 30 each tenable for 10 months awarded to the first three best students in the B.E. II examination for the study of 'Civil Engineering'.

3 scholarships of Rs. 30 each tenable for 10 months awarded to the first three best students in the B.E. II Examination for the study of 'Mechanical Engineering'.

3 scholarships of Rs. 30 each tenable for 10 months awarded to the first three best students in the B.E. II Examination for the study of 'Electrical Engineering'.

Faculty of Medicine :

M.B.,B.S. I Year ... 6 scholarships of Rs. 30 each tenable for 10 months awarded to the first six best students in order of merit in the Intermediate (Science) examination.

M.B.,B.S. II Year ... 6 scholarships of Rs. 30 each tenable for 10 months awarded to the first six best students in the M.B.,B.S. I Year examination.

III Year ... 6 scholarships of Rs. 35 each tenable for 10 months awarded to the first six best students in the M.B.,B.S. II Year examination.

- IV Year ... 6 scholarships of Rs. 35 each tenable for 10 months awarded to the first six best students in the M.B.B.S. III Year examination.
- V Year ... 6 scholarships of Rs. 35 each tenable for 10 months awarded to the first six best students in the M.B.B.S. IV Year examination.

*Faculty of Religion
& Culture :*

- B.A. ... 3 scholarships of Rs. 25 each tenable for 20 months awarded to the best students in order of merit in the Intermediate (Theology) examination.
- M.A. (Previous) ... 2 scholarships of Rs. 30 each tenable for 10 months awarded to the best students in order of merit in the B.A. (Theology) examination.
- M.A. (Final) ... 2 scholarships of Rs. 30 each tenable for 10 months awarded to the best students in order of merit in the M.A. (Previous) (Theology) examination.

Provided that the students who stand first in any one of the examinations in all the three faculties mentioned above and also pass the examination in the first division shall have their scholarships enhanced by Rs. 10 p. m.

Special Scholarships for Women

(1) In case no woman student secures a scholarship for courses of study for any of the following examinations, one special scholarship may be awarded to the best woman student provided she passes the examination on the results of which the scholarship is awarded, in the First or Second Division :—

Inter.; B.A.; B.Sc.; M.A.; M.Sc., & M.B.,B.S.

(2) Subject to the above provision, the value of the scholarships, the period of availability, and conditions of award shall be same as prescribed for Merit Scholarships for the corresponding courses of study.

Special Endowed Scholarships

(1) *Taimuri Endowed Scholarship*: One scholarship of Rs. 30 per mensem, tenable for four years to the student belonging to

the Ex-Royal family of Delhi, or failing that at the discretion of the Vice-Chancellor to any Muslim Student (man or woman).

(2) *V. D. Hardikar Memorial Scholarship*: One scholarship of Rs. 10 per mensem, tenable for ten months to be awarded to a student of the III Year Civil Engineering, who stands first in the B.E. II Examination.

Medals

Faculty of Arts

B.A. ... Sir Akbar Hydari Gold Medal awarded annually to the candidate who stands first in the B.A. examination and is placed in the First Division.

Khan Bahadur Ahmed Alladin Gold Medal awarded annually to the lady candidate who passes the B.A. examination with the highest marks.

Maulvi Mohd. Murtaza Gold Medal awarded annually to the candidate who stands first in the B.A. (Islamic History) examination.

Faculty of Education

B.Ed. ... Sir Akbar Hydari Gold Medal awarded annually to the candidate who stands first in the B.Ed. Examination.

Faculty of Engineering

B.E. ... Sir Akbar Hydari Gold Medal awarded annually to the candidate who stands first in the B.E. Part II examination and is placed in the First Division.

Roscoe Allen Gold Medal awarded annually to the candidate who passes the B.E. II examination with the highest marks in the subject of Hydraulics.

Nawab Karamat Jung's Gold Medals, one for Civil Engineering and the other for Mechanical Engineering, awarded annually to the candidates who obtain not less than 60 per cent of marks in

the aggregate in the B.E. III Year in Civil or Mechanical Engineering within the minimum period of three years prescribed to pass the B.E. Examination and stands first on the basis of their career in the University Examination and the Terminal Examination of the Engineering College.

Faculty of Medicine

M.B., B.S.

Sir Akbar Hydari Gold Medal awarded annually to the candidate who stands first in the M.B.,B.S. examination.

Lt.-Col. Farhat Ali Gold Medal awarded annually to the successful candidate who stands first in Anatomy in the First M.B.,B.S. examination.

Nawab Rustum Yar Jung Memorial Gold Medal awarded annually to the successful candidate who stands first in Surgery in the Final M.B.,B.S. examination.

Miss Jarbanoo Parakh Gold Medal awarded every year to the successful candidate who stands first in Midwifery in the Final M.B.B.S. examination.

Kishanji Dhage Arastu Yar Jung Gold Medal awarded annually to the candidate who stands first in Medicine in the Final M.B.B.S. examination.

*Faculty of Religion
and Culture*

B.A.

Khan Bahadur Ahmed Alladin Gold Medal awarded annually to the candidate who stands first in the B.A. Religion and Culture Examination and is placed in the First Division.

Faculty of Science

B.Sc.

Sir Akbar Hydari Gold Medal awarded annually to the candidate who stands first in the B.Sc. examination.

Women candidates

Intermediate ... Khan Bahadur Ahmed Alladin Gold Medal awarded annually to the lady candidate who passes the Intermediate examination with the highest marks.

Prizes

(a) Maulvi Abdul Haq Prize (Cash), awarded annually to the student of the Intermediate College, Aurangabad, standing first in Urdu in the Intermediate examination and who prosecutes further studies at the Osmania University.

(b) Mackenzie Memorial Prize (Books or Gold Medal) awarded annually to the student of Economics at the University presenting the best thesis embodying the results of economic enquiry into particular village of industry.

Department of Translation and Publication

The Compilation and Translation Bureau was founded in 1917 for the compilation and translation of standard works in Urdu. The Bureau had translated and published altogether 530 books. The number of technical terms compiled so far in Urdu is nearly one lakh (1,00,000).

The Bureau as such has now been reconstituted into a Department of translation and publication, which has now under taken translation and publication of books in Hindi and the Regional Languages of the State of Hyderabad—Telugu, Marathi and Kannada.

Under the present scheme of translations of text-books of Intermediate stage, the following subjects have been selected :—

1. Civics.
2. History
3. Economics
4. Geography
5. Physics
6. Chemistry
7. Botany, and
8. Zoology.

The Department has, after its reorganisation, so far published the following works in Hindi :—

1. Hindi Terms of Sociology ;
2. Samanya Hindi Shabd. Sangrah—Bhasha Survey No. I.
3. Samanya Hindi Shabd. Sangrah—Bhasha Survey No. II.
4. English Prefixes and Suffixes and their Hindi Equivalents.

Other works undertaken by the Department are under print which are as follows :—

1. A Concise English-Hindi Dictionary.
2. Hindi Terms of Chemistry.
3. English words and terms current in Indian Languages.

Nizamiah Observatory

The Nizamiah Observatory, was established in 1908 and was transferred to the control of the Osmania University in 1919. The work of the Nizamiah Observatory is divided into two sections as follows :—

1. *Astronomy*: The principal astronomical equipment consists of two equatorial telescope, an 8" photo visual and a 15" visual refractor, a Hale Spectroheliometer, a small transit instrument, and some other auxiliary instruments.

Since its establishment, the observatory has participated in the great international undertaking of Carte du Ciel and has completely measured the zones allotted to it in zones— 17° to 23° and $+36^{\circ}$ to $+39^{\circ}$. The results of these surveys have been published in a series of Astrographic Catalogues. The 15" visual refractor which has been used systematically for observations of variable stars is now being used for micrometrical measurements of the positions of comets and minor planets.

Daily observations of the sun with the Hale Spectroheliometer are made on all days of favourable weather in H light for observations of Solar flares and for measurements of radial velocities of prominences and flocculi. The data is being sent for publication in the Quarterly Bulletin of Solar Activity.

2. *Seismology*: The readings of the principal phases of the Seismograms obtained by means of the two miline Shaw Seismographs are sent for publication in the Quarterly Seismological

Bulletin of India. Coded messages of data relating to earthquake of moderate and great intensities are sent to Poona for ultimate transmission to the Director of the International Seismological Bureau, Strasburg.

3. *Meteorology*: From 1st April the Central Government has taken over the meteorological work.

Research

The University had a Research Institute to direct research in the various Departments of the University. But now the institution has been wound up and the various departments deal with research in their departments directly.

Associations in the University

The following are the Associations in the University :—

- | | |
|--------------------------|--------------------------------------|
| 1. Students' Union. | 10. Theology Association. |
| 2. History Association. | 11. Chemistry Association. |
| 3. Economic Association. | 12. Engineering Association. |
| 4. Law Society. | 13. Physics Association. |
| 5. Urdu Association. | 14. Students' Co operative Society. |
| 6. Kannada Association. | 15. English Literary Association. |
| 7. Telugu Association. | 16. Persian Association. |
| 8. Marathi Association. | 17. Sanskrit Association, and |
| 9. Arabic Association. | 18. Students' Philosophical Society. |

Extension Work

A sum of Rs. 2,500 has been provided in the budget for Extension Lectures by distinguished European and Indian scholars. A number of Extension Lectures are also delivered by members of the staff of the University on scientific and literary subjects.

Dairatul Maarif

The Dairatul Maarif was founded by the late Nawab Imadul Mulk and the late Mulla Abdul Qayyum Sahib in 1886 for the publication of rare books in Arabic, the chief aim being to collect the MSS. of the best and most valuable works written by the Muslim servants of different periods up to the 8th century Hijri which might otherwise perish and be lost to the world. The Dairatul Maarif has a total endowment of Rs. 5,30,000 which brings in annual income of Rs. 15,733. The Diara has so far

published 112 MSS. running into 313 volumes. It is now a semi-autonomous institution under the University. It has acquired an international reputation amongst orientalists for its publication of rare old Arabic Mss.

Women's Education

Women are admitted as private students to the Intermediate and B.A. examinations in all subjects. There is a Women's College in Hyderabad teaching up to the M.A. and M.Sc. which has 711 students on its rolls.

Besides except two Intermediate Colleges all the Colleges of the University are co-educational.

Provision for safeguarding Health, Discipline, etc.

The University has a highly qualified Senior Medical Officer who visits the University twice a week. There is also a fully qualified Resident Medical Officer who lives on the campus. He also conducts periodical medical examination of students.

The Principals of Colleges are supreme in matters of discipline and have powers to rusticate or otherwise punish the students.

Courses of Study, Examinations and Degrees

The University offers in the Faculties of Arts and Religion and Culture, the Degrees of B.A., M.A. and Ph.D., in the Faculty of Commerce, B.Com. and M.Com., in the Faculty of Science, Degrees of B.Sc., M.Sc. and Ph.D., in the Faculty of Law, the Degrees of LL.B. and LL.M. in the Faculty of Education, the Degrees of B.Ed. and M.Ed., in the Faculty of Engineering, the Degrees of B.E. (and Overseer's Certificate); in the Faculty of Medicine, the Degrees of M.B.B.S. ; in the Faculty of Agriculture, B.Sc. Ag., and in the Faculty of Veterinary Science, the Degree of B.V.Sc.

Special provision is made for the following classes of persons for admission to the Intermediate and B.A. examinations of the University as private candidates :—

1. Inspecting Officers of the State Education Department and whole-time teachers of two years' standing employed in an educational institution ;
2. Lab. Assistants in an educational institution ;
3. Women.

Admissions to the University

The Intermediate stage of education is part of the course for the degree and only those who have passed the Matriculation or an equivalent recognised examination are admitted to the course.

Courses of Study

The Intermediate Examination.—The course extends over two years after Matriculation. The subjects for study for the examination are (1) English (3 papers). (2) Regional or allied classical language (Kannada, Telugu, Marathi, Urdu, Hindi, Tamil, Sanskrit, Arabic or Persian) (one paper). (3) Any one of the following groups of 3 subjects (two papers in each subject) except in Mathematics and Geography in which there are three papers:—

For Intermediate Science optional subjects, the scheme will be as follows:—

For each optional subject two theory papers and one practical and in Mathematics three papers and in Biology two papers.

Combination Arts

History	Economics	Sociology	
History	Economics	Civics	
History	Philosophy	Civics	Geography
History	Philosophy	Civics	Classical Lang.
History	Economics	Commerce	Geography.
Mathematics	Economics	Commerce	
	Economics	Sociology	Classical Lang.
Modern Lang.	Economics	Sociology	
Modern Lang.	Economics		Classical Lang.
Mathematics	Philosophy	Commerce	Geography
	Philosophy	Civics	Classical Lang.
Modern Lang.	Philosophy	Civics	
Mathematics	Economics	Sociology	Geography
Modern Lang.			Geography
Modern Lang.	Philosophy	Sociology	Classical Lang.
Modern Lang.	Economics		Classical Lang.
Modern Lang.			Geography
Civics	Modern Lang.	Civics	Classical Lang.
			Geography.

Combinations Science

Physics
Physics

Chemistry
Chemistry

Biology
Mathematics

Candidates obtaining—

60 per cent. and above are placed in the 1st Division.

45 per cent. to 59 per cent are placed in the 2nd Division.

33 per cent. to 44 per cent are placed in the 3rd Division.

When a candidate fails to pass the examination, but secures not less than 35 per cent of the marks in the aggregate of all the subjects and not less than 25 per cent of marks in one or two subjects in any one group, he may be exempted from appearing at a subsequent examination or examinations in a subject or subjects in which he has passed.

Bachelor of Arts.—The course of study extends over two years after the Intermediate Examination of this University or an examination accepted as equivalent thereto. The subjects of study for the examination are: (a) English (2 papers); (2) Regional or allied classical language (Kannada, Telugu, Marathi, Urdu, Hindi, Tamil, Sanskrit, Arabic or Persian) (1 paper); (3) Any one of the following groups of one Main of four papers and two Subsidiaries of two papers each, and in Geography Main 3 theory papers and 1 practical and in Geography theory 2 theory papers and 1 practical.

Combinations for B.A.

<i>Main</i>	<i>Subsidiary</i>	<i>Subsidiary</i>
1. History	Economics	Sociology
2. History	Economics	Political Science
3. History	Economics	Geography
4. History	Philosophy	Classical Language
5. History	Philosophy	Political Science
6. Economics	History	Political Science
7. Economics	Political Science	Modern Language
8. Economics	Sociology	Modern Language
9. Economics	History	Sociology
10. Economics	History	Geography
11. Mathematics	Statistics	Applied Mathematics
12. Mathematics	Astronomy	Applied Mathematics
13. Mathematics	Economics	Applied Mathematics
14. Philosophy	History	Political Science

<i>Main</i>	<i>Subsidiary</i>	<i>Subsidiary</i>
15. Philosophy	Modern Language	Classical Language
16. Philosophy	Psychology	Political Science
17. Political Science	History	Economics
18. Political Science	Philosophy	History
19. Political Science	Economics	Modern Language
20. Modern Language.	Economics	Sociology
21. Modern Language	Philosophy	Classical Language
22. Modern Language	Economics	Geography
23. Modern Language	Economics	Political Science
24. Modern Language	Philosophy	Political Science
25. Classical Language	Philosophy	Modern Language
26. Classical Language	Philosophy	History
27. Classical Language	History	Economics
28. Sociology	History	Economics
29. Sociology	Modern Language	Economics
30. Sociology	Philosophy	History
31. Economics	Sociology	Geography
32. Economics	Modern Language	Geography
33. Sociology	Modern Language	Geography
34. Classical Language	Economics	Modern Language
35. Political Science	History	Geography
36. Political Science	Economics	Sociology
37. Classical Language	Political Science	Modern Language
38. Classical Language	History	Modern Language
39. Modern Language	History	Economics
40. Geography	History	Economics
41. Geography	Economics	Sociology
42. Geography	Political Science	Modern Language
43. Modern Language	Economics	Classical Language

Candidates obtaining—

60 per cent. and above are placed in the First Division.	} Of the aggregate marks in the optional subjects.
48 to 59 per cent are placed in the 2nd Division.	
36 per cent to 47 per cent are placed in the 3rd Division.	

Divisions shall be declared only on the basis of the marks secured by the candidate in the Optional subjects and candidates securing 60 per cent and above marks in General English will be declared to have passed with distinction in English.

When a candidate fails to pass the examination, but secures not less than 36 per cent of the marks in the aggregate of all the subjects and not less than 25 per cent of marks in one or two subjects in any one group, he may be exempted from appearing at a subsequent examination or examinations in a subject or subjects in which he has passed.

Master of Arts (M.A.).—The course extends over two years subsequent to graduation and is open to graduates of this or of a recognised University. The examination consists of two parts. Previous and Final—held after each academic year. There are four papers in the Previous and four in the Final Examination.

A student's choice of subjects in the M.A. examination is restricted to one of the subjects he offered for the Bachelor's Degree. The subject for study and examination is one of the following :—

English ; History ; Philosophy ; Economics ; Political Science ; Sociology ; Mathematics ; Urdu, Persian ; Arabic ; Sanskrit ; Telugu ; Marathi ; Kannada ; Hindi ; Tamil and Religion and Culture.

Minimum pass marks in each subject 40 per cent.
Minimum pass marks in the aggregate 40 per cent.

Results will be announced on the following basis :—

First Division 60 per cent and above.	} of the aggregate marks of the combined results the Previous and Final examinations.
Second Division 50 per cent to 59 per cent.	
Third Division 40 per cent to 49 per cent.	

Doctor of Philosophy (Ph.D.).—The course extends over two years and is open to the candidates who have passed the M.A. Examination of this or any other recognised University in the First or Second Class. The Candidates are required to submit a thesis based on original research and to undergo a *viva voce* and written examination, if necessary.

Science

Bachelor of Science (B.Sc.).—The course of study extends over two years after the Intermediate (Science) examination of this University or an examination accepted as equivalent thereto. The subjects for examination are as follows: (1) English, (2 papers); (2) Regional or allied classical language (as in B.A.) (one paper); (3) One of the following groups of One Main subject of 3 theory papers and two practicals and two Subsidiary subjects of two theory papers and one practical for each. There will be no practical examination in Mathematics.

Combinations for B.Sc.

<i>Main</i>	<i>Subsidiary</i>	<i>Subsidiary</i>
1. Chemistry	Physics	Mathematics.
2. Chemistry	Botany	Zoology
3. Physics	Chemistry	Mathematics
4. Physics	Geology	Mathematics
5. Geology	Physics	Mathematics
6. Botany	Chemistry	Zoology
7. Botany	Chemistry	Geology
8. Zoology	Chemistry	Botany
9. Zoology	Chemistry	Geology
10. Zoology	Botany	Geology
11. Mathematics	Physics	Chemistry

Pass Marks :

	Per cent.
Minimum pass marks in the aggregate of theory papers...	33
Minimum pass marks in the aggregate of Practical ...	33
Minimum pass marks in the aggregate of theory and Practical papers ...	36

Divisions for the B.Sc. are the same as for B.A.

Master of Science (M.Sc.).—The course extends over two years and is open to graduates in Science of this or of a recognised University. A student's choice of subjects in the M.Sc. Examination is restricted to one of the subjects he offered for the Bachelor's degree. There will be two examinations—the Previous and the Final—after each academic year. There will be three theory papers and two practicals in the Previous as well as in the Final Examination. The subject of study and examination is one of the following :—

Physics, Chemistry, Botany, Zoology.

Percentage for passes, etc., is the same as in the M.A.

Minimum pass marks in the aggregate of marks of :—

	Per cent
Theory papers	36
Practical papers	36
Theory and Practical papers	40

Master of Science in Technology (M.Sc. Tech.).—The course extends over two years and is open to graduates in Science with Physics, Mathematics and Chemistry of this or of a recognised University. There will be two examinations—the Previous and the Final—after each academic year. Students will be admitted to one of the following five groups of study for their M.Sc. (Tech.) Previous and Final Examinations :—

Group I—Oil Technology.

Group II—Ceramic Technology.

Group III—Chemical Engineering.

Group IV—Fuel Technology.

Group V—Applied Analytical Chemistry.

There will be four theory papers and four Practicals in the Previous and four theory papers and three practicals in the final Examination.

Percentage for passes and minimum pass marks in the aggregate are same as for M.Sc.

Ph.D.—The course extends over two years and is open to the candidates who have passed the M.Sc. Examination of this or any other recognised University in the First or Second Class. The candidates are required to submit a thesis based on original research and undergo a *viva voce* and written examination, if necessary.

Diploma in German and French.—The University provides for the teaching of German and French languages, and awards a Diploma after a course of two years. The classes are held out of the University hours. They are open to students, as well as outsiders. The fee for the teaching of these languages is Rs. 6 per term.

The examination consists of two written and one oral examination.

In order to pass the examination, the candidates are required to secure 33 per cent of the full marks in the written as well as in the oral examination and classes are arranged on the same basis as at other University examination.

Commerce

I.Com. (Intermediate Commerce).—The course extends over two years after Matriculation or its equivalent. The subjects for study for the examination are (1) English (3 papers), (2) Regional or allied classical language (Kannada, Telugu, Marathi, Urdu, Hindi, Tamil, Sanskrit, Arabic or Persian) (One paper), (3) Commerce (6 papers) as follows:—

- I. Elementary Mathematics.
- II. Economic and Commercial Geography with special reference to India.
- III. Elementary book-keeping and Commercial Arithmetic.
- IV. Accountancy.
- V. General Commercial knowledge (including commercial correspondence, Business Methods and office organisation).
- VI. One of the following subjects:

- (i) Shorthand and Typewriting.
- (ii) Mathematics.
- (iii) Elements of Civics and Indian Administration.

B.Com.—The course extends over two academic years. All those students who have passed the I.Com., Intermediate Arts with Commerce or its equivalent examination of this University or an examination recognised as equivalent thereto are admitted to B.Com. Every candidate shall be required to pass in.

- (1) English (2 papers as in B.A.)
- (2) Regional or allied classical language (one paper as in B.A.)

- (3) Commerce (9 papers as follows):—
- (i) Precis-writing and Commercial Correspondence etc. and Market Reports.
 - (ii) Modern Economic Development of England, U.S.A., Russia and India.
 - (iii) Business Organisation.
 - (iv) Statistics.
 - (v) Principles of Economics and Public Finance.
 - (vi) Currency, Banking and International Trade.
 - (vii) Mercantile Law.
 - (viii) & (ix) Any one of the following subjects:—
 - (a) Advanced Accountancy and Auditing.
 - (b) Transport.
 - (c) Advanced Banking.
 - (d) Statistics.
 - (e) Insurance.
 - (f) Rural Economics and Co-operation.

N.B.—Each subject comprises two papers and students can choose Advanced Statistics only if they had Mathematics as one of the optionals in their I.Com. Examination.

Master of Commerce (M.Com.).—The course extends over two years subsequent to graduation in Commerce and is open to Commerce Graduates of this University or of a recognised University. The examination consists of two parts—Previous and Final—held after each academic year.

M.Com. (Previous) comprises four papers as follows:—

- (1) Corporation Finance.
- (2) Organization of Industry.
- (3) Organization of Market.
- (4) Applied Statistics.

M.Com. (Final) one of the following groups containing four papers each:—

Group A—

- (i) International Banking and Foreign exchange.
- (ii) International Trade and Fiscal Policy.
- (iii) Labour Economics.
- (iv) Labour Management.

Degrees Awarded by the University

Faculty of Arts	...	...	B.A., B.O.L., M.A., Ph.D., D.Litt
Faculty of Science	...	...	B.Sc., M.Sc., Ph.D., D.Sc.
Faculty of Law	...	...	LL.B., LL.M.
Faculty of Education	...	...	Dip. in Edn.
Faculty of Commerce	...	...	B.Com.
Faculty of Medicine	...	...	M.B.B.S.

Post-graduate Study

For the present Post-graduate study has been provided for the following subjects of Arts and Science:—

Master of Arts	...	...	English, Oriya, Economics and History.
Master of Science	...	...	Physics, Chemistry, Mathematics, Botany.

Bachelor of Arts and Science

Courses of Studies for the Bachelor's degrees in Arts and Science both Pass and Honours extend over a period of two academic years and any registered student of the University may be admitted to the examination for the Bachelor's degree in Arts or Science if he has completed in one or more colleges admitted for the purpose of such examination in the subjects which the candidate offers, a regular course of study for not less than two academic years after passing the Intermediate examination or some other examination recognised by this University as equivalent thereto.

Bachelor of Commerce

Courses of studies for the Bachelor's degree examination in Commerce extend over a period of two academic years. A candidate shall only be eligible for admission to the examination in Commerce, if he has passed the Intermediate examination in Commerce or Intermediate examination in Arts or Science.

Master of Arts

Courses of studies for the Master's degree in Arts extend over a period of 2 years and are open to any registered student of this University who has passed B.A., or B.Sc. or B.Com. examination or some other examination recognised by the Uni-

versity as equivalent thereto, not less than two academical years previously, if he has completed a regular course of study in the subject offered in a College or Colleges admitted to the privileges of the University.

Master of Science

Courses of studies for the Master's degree in Science extend over a period of two years and are open to any registered student of this University who has passed the B.Sc. examination or some other examination recognised by the University as equivalent thereto, not less than two academical years previously, and if he has completed a regular course of study in the subject offered in a College or Colleges admitted to the privileges of the University.

Ph.D., in Arts or Science

Any person who holds the degree of Master of Arts or Science from this University or from any other recognised University is permitted to appear for the Ph.D. degree in Arts or Science of this University respectively, if not less than two years have elapsed since he passed the examination and no candidate if he was not placed either in the first or the second class at the examination for the Master's degree or the degree recognised as equivalent thereto is allowed to appear at the Ph.D. examination without special permission of the Syndicate.

D.Litt. and D.Sc.

For the Doctor's degree in Literature or Science any person holding the Master's degree in Arts or Science of the Utkal University or of any other recognised University who was placed in either the first or the second class at the examination for the degree of Master, or any person who holds the degree of Ph.D. in Arts or Science of the Utkal University or of any other recognised University, may at any time not less than five years in the case of the former and three years in the case of the latter from the date when he passed the examination for such degree, offer himself as a candidate for the degree of Doctor of Literature or Science respectively.

Dip.-in-Education

The Diploma in Education examination of this University is designed to test the fitness of the candidates for work in Secondary

Group B—

- (i) Advanced company accounts.
- (ii) Principles of Auditing and Practice.
- (iii) Income Tax Law and Accounts.
- (iv) Cost Accounting.

Faculty of Religion and Culture

(At present there is provision for the study of only Islamic Religion and Culture.)

Intermediate Examination.—The subjects of study and examination are:—

- (1) English (3 papers as in Arts).
- (2) Arabic (1 paper as in Arts).
- (3) Compulsory subjects (3 papers).
- (4) Optional subject (one of the following):—

Sociology
History (Indian and Islamic)
Economics.
Philosophy (2 papers as in Arts.)
Civics.

The marks for a pass and classification of successful candidates are same as for the Intermediate Examination in Arts.

Bachelor of Arts (Religion and Culture).—The course of study extends over two years subsequent to passing the Intermediate Examination. The subjects for study and examination are:—

- (1) English (2 papers as in Arts Faculty).
- (2) Quran (one paper).
- (3) Arabic (2 papers as in Arts Faculty).
- (4) Theology (4 papers).
- (5) One optional subject:—(Subsidiary).

One of the following—History, Economics, Philosophy,
Political Science (2 papers as in Arts Faculty).

Minimum marks for a pass, etc., is the same as for B.A. in Arts.

Master of Arts (Religion and Culture).—The course extends over two years after graduation. The examination consists of two parts Previous and Final—held at the end of each academic year.

There are four papers in the Previous Examination and four in the Final.

(Previous)

Paper I.—History of Muslims Civilization.

Paper II.—Islamic Jurisprudence.

Paper III.—Reformist Movements in Islam.

Paper IV.—Comparative religion.

(Final)

Paper I.—Special Topic Religion and Culture.

Paper II.—Islamic Mysticism.

Paper III.—Muslim Political Thought.

Paper IV.—Philosophy of Religion.

Minimum marks for pass, etc., are the same as for the M.A. Examination in Arts.

Doctor of Philosophy (Religion and Culture) (Ph.D.).—The course extends over two years and is open to candidates who have passed the M.A. Examination of this or any other recognised University in the First or Second Division.

The candidates are required to submit a thesis based on original research and to undergo a *viva voce* and written examination, if necessary.

Professional Courses of Study and Examinations

Law : Bachelor of Laws (LL.B.).—The course extends over two years subsequent to graduation. The examination is held in two parts—Previous and Final—at the end of each academic year. There are 6 papers in Previous and 6 in the Final Examination.

The subjects of study in the first year are :—

- (1) Law of Contracts and Sale of Goods Act.
- (2) Law of Evidence.
- (3) Criminal Law and Procedure.
- (4) Constitutional Law (Indian and English).
- (5) Torts and Easements.
- (6) One of the following :—
 - (i) Roman Law.
 - (ii) Conflict of Laws.
 - (iii) Current International Relations.

The subjects of study in the second year are :—

- (1) Muslim Law. (2) Hindu Law. (3) Transfer of Property, land Tenure and Atiyat. (4) Civil Procedure, Civil Courts Acts and Limitations Act. (5) Jurisprudence and Public International Law. (6) One of the following :—Company Law and Partnership ; Trust and Specific Relief Act ; Diplomacy.

Results will be announced on the following basis :—

	Per cent.
Minimum pass marks in each paper ...	... 40
Minimum pass marks in aggregate ...	... 45

First Division 65 per cent and above	} of the aggregate of marks obtained in Previous and Final Examinations.
Second Division Below 65 per cent but not less than 45 per cent	

Master of Laws (LL.M.).—The course extends over two years subsequent to graduation in Law. The examination is in two parts—Previous and Final—held at the end of each academic year. There are four papers of 100 marks each in the Previous and four papers of 100 marks each and thesis of 200 marks in lieu of the last two papers in the final examination. The subjects for study in the first year are as follows :—

- (1) Comparative Jurisprudence and Principles of Legislation.
- (2) Comparative Constitutional Laws.
- (3) and (4). Any two of the following :—
 - (i) Hindu Law, History and Jurisprudence.
 - (ii) Muslim Law, History and Jurisprudence.
 - (iii) Public International Law.
 - (iv) Administrative Law with special reference to the Constitution of Indian Republic, 1949.

The following are the subjects of study in the Final Examination :

- (1) Comparative Eastern and Western Social Institutions.
- (2) One of the following special Topics relating to Hyderabad Law :—

Administration of Justice in Hyderabad.
Administration of Personal Laws in Hyderabad.

An extensive study of Equity.
Social Legislation from 1870 onwards.

N.B.—Only those students will be allowed to take thesis who have obtained first class marks at their LL.M. (Previous) Examination.

Results are announced on the following basis :—

	Per cent.
Minimum pass marks in each paper ...	40
Minimum pass marks in theses ...	50
Minimum pass marks in aggregate ...	45
First Division—65 per cent and above.	} Of the aggregate of marks obtained in Previous and Final Examinations.
Second Division—Below 65 per cent but not less than 45 per cent	

Education

B.Ed.—The course extends over one year and is open to all graduates of this or of any other recognised University. The examination comprises 5 papers and a practical examination as follows :—

- (1) Principles of Education and Educational Psychology.
- (2) History of Education.
- (3) School Organisation and School Hygiene.
- (4) Methods of Teaching any two of the following subjects :
English ; History ; Mathematics ; Science ; Geography ;
and other languages.
- (5) One of the following special subjects :—

Child Education ; Advanced Educational Psychology ;
Modern systems of Education ; Adult Education ;
Basic Education.

Further, every candidate is required to give under proper supervision at least 30 lessons during the year. The scheme of examination is as follows :—

Theory—Five papers—100 marks each.
Practical—(1) Record of Teaching work 100 marks
(2) Teaching of one lesson—100 marks

The subjects of study in the second year are :—

- (1) Muslim Law. (2) Hindu Law. (3) Transfer of Property, land Tenure and Atiyat. (4) Civil Procedure, Civil Courts Acts and Limitations Act. (5) Jurisprudence and Public International Law. (6) One of the following :—Company Law and Partnership ; Trust and Specific Relief Act ; Diplomacy.

Results will be announced on the following basis :—

	Per cent.
Minimum pass marks in each paper ...	... 40
Minimum pass marks in aggregate ...	... 45

First Division 65 per cent and above	} of the aggregate of marks obtained in Previous and Final Examinations.
Second Division Below 65 per cent but not less than 45 per cent	

Master of Laws (LL.M.).—The course extends over two years subsequent to graduation in Law. The examination is in two parts—Previous and Final—held at the end of each academic year. There are four papers of 100 marks each in the Previous and four papers of 100 marks each and thesis of 200 marks in lieu of the last two papers in the final examination. The subjects for study in the first year are as follows :—

- (1) Comparative Jurisprudence and Principles of Legislation.
- (2) Comparative Constitutional Laws.
- (3) and (4). Any two of the following :—
 - (i) Hindu Law, History and Jurisprudence.
 - (ii) Muslim Law, History and Jurisprudence.
 - (iii) Public International Law.
 - (iv) Administrative Law with special reference to the Constitution of Indian Republic, 1949.

The following are the subjects of study in the Final Examination :

- (1) Comparative Eastern and Western Social Institutions.
- (2) One of the following special Topics relating to Hyderabad Law :—

Administration of Justice in Hyderabad.
Administration of Personal Laws in Hyderabad.

An extensive study of Equity.
Social Legislation from 1870 onwards.

N.B.—Only those students will be allowed to take thesis who have obtained first class marks at their LL.M. (Previous) Examination.

Results are announced on the following basis :—

	Per cent.
Minimum pass marks in each paper	40
Minimum pass marks in theses	50
Minimum pass marks in aggregate	45

First Division—65 per cent and above. } Of the aggregate of
 Second Division—Below 65 per cent } marks obtained in
 but not less than 45 per cent } Previous and Final
 Examinations.

Education

B.Ed.—The course extends over one year and is open to all graduates of this or of any other recognised University. The examination comprises 5 papers and a practical examination as follows :—

- (1) Principles of Education and Educational Psychology.
- (2) History of Education.
- (3) School Organisation and School Hygiene.
- (4) Methods of Teaching any two of the following subjects :
English ; History ; Mathematics ; Science ; Geography ;
and other languages.
- (5) One of the following special subjects :—

Child Education ; Advanced Educational Psychology ;
Modern systems of Education ; Adult Education ;
Basic Education.

Further, every candidate is required to give under proper supervision at least 30 lessons during the year. The scheme of examination is as follows :—

- Theory—Five papers—100 marks each.
- Practical—(1) Record of Teaching work 100 marks
 (2) Teaching of one lesson—100 marks

	Per cent.
Minimum pass marks in each paper ...	36
Minimum pass marks in practical ...	40
Minimum pass marks in aggregate of Theory papers ...	36
Minimum pass marks in aggregate of practical papers ...	40

Divisions will be awarded on the following basis :—

Theory

First Division ...	60 per cent and above.
Second Division	Below 60 per cent but not less than 50 per cent.
Third Division	Below 50 per cent but not less than 36 per cent.

Practical

First Division ...	65 per cent and above.
Second Division.	Below 65 per cent but not less than 55 per cent.
Third Division	Below 55 per cent but not less than 40 per cent.

} of the aggregate
marks.

M.Ed.—The course extends over one academic year and is open to Dip. in Edn., B.Ts. or B.Eds. of the Osmania or any other recognised University. The examination comprises 3 papers and Dissertation as follows :—

- (1) General Theory of Education and Educational Sociology.
- (2) Methodology of one of the following subjects :
English ; History and Civics ; Mathematics ; Geography ; Science ; Urdu or other languages.
- (3) Special subject : One of the following :—
 - (i) Educational Organisation and Administration.
 - (ii) Tests and Measurement in Education.
 - (iii) Advanced Educational Psychology.
 - (iv) History of Educational Ideas.
 - (v) Comparative Education.
 - (vi) Methods and organisation in Nursery Schools, Kindergartens and Montessori Schools,

- (vii) Vocational and Educational Dissertation.—to be valued by two examiners: one External and the other Internal.

Results are announced on the following basis:—

	Per cent.
Minimum pass marks in each paper ...	40
Minimum pass marks in aggregate ...	40
Minimum pass marks in Dissertation ...	40

Divisions will be awarded on the following basis:—

First Division ...	60 per cent and above.	} of the aggregate marks.
Second Division ...	Below 60 per cent but not less than 50 per cent.	
Third Division ...	Below 50 per cent but not less than 40 per cent.	

Engineering

B.E.—The course extends over three years. Only candidates who have passed the Intermediate Examination of this or of a recognised University and who have taken Physics, Chemistry and Mathematics in that Examination are admitted to the Faculty. The examination consists of three parts held at the end of each academic year. The College provides for instruction in three branches of Engineering—Civil, Mechanical and Electrical. The examination prescribed for the B.E. Degree may be conducted as deemed necessary, by means of written papers, practical and oral tests, inspection of certified sessional work and Drawing and Laboratories and Workshops or by means of any combination of these methods. The subjects for examination will be as follows:—

B.E. Part I.—(Common to Civil, Mechanical and Electrical)

1. Pure Mathematics, (2) Applied Mathematics, (3) Surveying, (4) Engineering Drawing, (5) Strength of Materials and Theory of Structures, (6) Elements of Civil Engineering, (7) Elements of Mechanical Engineering, (8) Elements of Electrical Engineering, (9) Workshop Practice.

Schools or in Primary Schools. Any registered candidate may be admitted to the Diploma in Education examination not less than one year after passing the B.A or B.Sc. examination or an examination recognised as equivalent thereto, if he has completed a regular course of study in a Training college or colleges admitted for this purpose and has undergone a course of practical training in one or more schools approved by the Syndicate for the purpose.

Master of Laws

The Master of Law examination is open to any registered candidate of the University who has passed the Bachelor of Law examination, or some other examination recognised by the University as equivalent thereto.

Bachelor of Laws

The Bachelor of Law examination is open to any registered candidate of the University if he after passing the B.A., B.Sc B.Com., M.B.B.S., B.O.L., examination of this University or a Bachelor's Degree in Engineering and any other examination recognised as equivalent thereto, completes a regular course of study for not less than two academical years in a college admitted in Law and he must pass the two examinations in Law, namely, Law Part I not earlier than the end of the first year of Law Study and the Law examination Part II not earlier than the end of the second year of Law study.

Bachelor of Medicine and Surgery

A candidate for the M.B.B.S. degree of the Utkal University shall be required to pass the following examinations of which the last two represent the medical course proper, namely :—

- (i) The First M.B.B.S. examination, the
- (ii) Final M.B.B.S. examination Parts I & II.

No candidate shall be allowed to begin the Medical Course proper until he has completed the age of 17 unless he will complete that age during the first four months of the medical course.

A registered student of the University may be admitted to the First M.B.B.S. examination if he has subsequently to his passing one of the following examinations, completed a regular course of study, theoretical and practical in the subjects of exa-

mination for not less than two academic years in a college admitted to the University up to the standard of the First M.B.B.S. examination.

(i) The I.Sc. examination of the Utkal University with Physics, Chemistry and Biology, or some other examination recognised by the Academic Council as equivalent thereto for the purpose of this regulation.

(ii) The B.Sc. examination of a recognised University with Botany and Zoology, in addition to having passed in Physics and Chemistry either at the Intermediate or degree examination.

Admission to Non-Collegiate students

A non-collegiate student shall not be admitted to any University examination other than the Matriculation Examination but the Syndicate ordinarily grants permission to appear at any such examination to the following non-collegiate students, namely:—

- (a) a person who has, during the three academical years immediately preceding such examination (i) served as an Inspecting Officer in the Education Department, or (ii) served as a teacher in a college or any other educational institution approved for this purpose by the Syndicate. These privileges are also extended to laboratory assistants, demonstrators and librarians serving in an institution under the jurisdiction of the University.

The University also prescribed regulations for the following type of candidates for appearing at the examination privately:

- (i) candidates whose studies have been interrupted by their joining one of the defence services;
- (ii) candidates, from the disturbed areas of Pakistan and Indian dominions;
- (iii) refugee students, etc.

Women's Education

Women candidates are admitted to all examinations of the University without attending a regular course of study in any institution under the jurisdiction of the University.

B.E. Part II.—(Civil).

- (1) Mathematics (Pure and Applied), (2) Strength of Materials and Theory of Structures, (3) Hydraulics, (4) Civil Engineering, (5) Surveying, (6) Irrigation, (7) Materials and Construction, (8) Geology (Engineering), (9) Estimating.

B.E. Part II.—(Mechanical).

- (1) Mathematics (Pure and Applied), (2) Strength of Materials and Theory of Structures, (3) Hydraulics, (4) Machine Design and Drawing, (5) Applied Thermodynamics, (6) Theory of Machines, (7) Electrical Machinery, (8) Workshop Technology and Practice.

B.E. Part II.—(Electrical).

- (1) Mathematics (Pure and Applied), (2) Strength of Materials and Theory of Structures, (3) Hydraulics, (4) Electrical Measurements, (5) Applied Thermodynamics, (6) Theory of Machines, (7) Electrical Machinery I, (8) Workshop Technology and Practice.

B.E. Part III.—(Civil).

- (1) Strength of Materials, (2) Theory of Structures, (3) Hydraulics, (4) R. C. C. Design and Drawing, (5) Water Supply and Sanitary Engineering, (6) Design of Irrigation Works and Water Power, (7) Railways, Roads and Bridges, (8) Economics, (9) Architecture and Town Planning.

B.E. Part III.—(Mechanical).

- (1) Strength of Materials, (2) Applied Thermodynamics, (3) Hydraulic Machinery, (4) Theory of Machines, (5) Metallurgy, (6) Electrical Power, (7) Metrology and Machine Tools, (8) Engineering Economics, (9) Economics.

B.E. Part III.—(Electrical).

- (1) Strength of Materials, (2) Applied Thermodynamics, (3) Hydraulic Machinery, (4) Electrical Machine Design, (5) Electrical Power I, (6) Electrical Power II, (7) Electrical Machinery II, (8) Engineering Economics, (9) Economics.

Minimum pass marks in each subject:—

	Per cent.
Each paper	33
Sessional work	33
Practical work	33
Aggregate marks of paper, Sessional work and Practical	45

Divisions

First Division	65 per cent and above	} of the aggregate marks of the combined results of Parts I, II and III.
Second Division	Below 65 per cent but not less than 45 per cent.	

Medicine

M.B.,B.S.—The course extends over five years. Students who have passed the Intermediate Examination with Physics, Chemistry (Organic and Inorganic) and Biology (Botany and Zoology including elements of genetics) are eligible for admission to the course. They must have attained the age of 17 years at the time of admission or will attain that age during the first term of studies. The examination consists of four parts. The First *M.B.,B.S.* Examination is held after a regular course of study extending every 6 terms and the others after every three terms of regular course of study. The subjects for the various examinations are as follows:—

First M.B.,B.S.

1. Anatomy, including Embryology.
- (2) Physiology, including Histology and Biochemistry.

Second M.B.,B.S.

- (1) Materia Medica and Pharmacology including Practical Pharmacy.

Third M.B.,B.S.

- (1) Pathology and Bacteriology.
- (2) Forensic Medicine
- (3) Hygiene.

Fourth M.B., B.S.

- (1) Medicine
- (2) Surgery
- (3) Ophthalmology
- (4) Midwifery and Gynaecology.

For all examinations:—

	Per cent.
Minimum pass marks in Theory ...	50
Minimum pass marks in Practical and Oral ...	50
For distinction* in a subject ...	75
For Honours* ...	75

of the aggregate of marks in each Part of the Examination.

Agriculture

B.Sc. (Agr.).—The course extends over three academic years and is open to students who have passed the Intermediate Science Examination of this or of a recognised University with Biology, Chemistry and Physics or Geology, as their subjects. They must have attained the age of 17 years at the time of admission or will attain that age during the first term of the studies. The following are the subjects for various Examinations as well as for Practicals:

Part I.—(1) Agronomy, (2) Agricultural Botany, (3) Agricultural Chemistry, (4) Animal Husbandry, (5) Agricultural Engineering, (6) Rural Economics and Sociology.

Part II.—(1) Agronomy, (2) Agricultural Botany, (3) Agricultural Chemistry, (4) Entomology, (5) Plant Pathology, (6) Agricultural Engineering.

Part III.—(1) Agronomy, (2) Horticulture, (3) Animal Husbandry, (4) Rural Economics and Sociology, (5) Essay.

	Per cent.
Minimum pass in each Theory paper ...	33
Minimum pass in each Practical paper ...	33
Minimum pass in each Aggregate of Theory and Practical ...	40

*Note.—For Distinction or Honours each part of the examination must be passed in the first attempt in the minimum prescribed time.

Divisions will be awarded on the following basis :—

First Division ...	60 per cent and above	} of the aggregate of marks of the combined results of Parts I, II and III.
Second Division	Below 60 per cent but not less than 50 per cent.	
Third Division ...	Below 50 per cent but not less than 40 per cent.	

Veterinary Science

B.V.Sc.—The course extends over four academic years and is open to candidates who have passed the Intermediate Examination of this or any recognised University with Biology, Chemistry and Physics. The examination consists of four parts held at the end of each academic year.

The following are the subjects for various examinations as well as for Practicals :—

I Year

- (1) Animal Husbandry Part I.
- (2) Anatomy Part I.
- (3) Biochemistry.

II Year

- (1) Animal Husbandry Part II.
- (2) Anatomy Part II.
- (3) Physiology & Biochemistry Part I and II.
- (4) Parasitology.

III Year

- (1) Animal Husbandry Part III.
- (2) Materia Medica and Pharmacology.
- (3) Pathology, Bacteriology and Immunology.

IV Year

- (1) Animal Husbandry Part IV.
- (2) Surgery.
- (3) Medicine and Meat Inspection.

	Per cent.
Minimum pass marks in each Theory Paper ...	50
Minimum pass marks in Practical & Oral ...	50
*For distinction in a subject ...	75
*For Honours 75 per cent of the aggregate marks in each part of the examination.	

Examination Fees

1. Intermediate Arts and Commerce

	Rs.	a.	p.
(a) Whole Examination ...	30	0	0
(b) Any part or parts ...	24	0	0

2. Intermediate Science

(a) Whole Examination ...	32	8	0
(b) Any part or parts ...	26	0	0

3. B.A. and B.Com.

(a) Whole Examination ...	40	0	0
(b) Any part or parts ...	32	0	0

4. First appearance for Regional Languages for B.A., B.Sc., and B.Com. at the end of Third year Rs. 5 and for subsequent appearance ; R. 5

	Rs.	a.	p.
5. B.Sc.			
(a) Whole Examination ...	45	0	0
(b) Any part or parts ...	36	0	0
6. M.A. (Previous and Final)	37	8	0
7. M.Sc. (Previous and Final)	43	12	0
8. LL.B. (Previous and Final)	37	8	0
9. LL.M. (Previous and Final)	37	8	0
10. B.E. (1st and 2nd)	37	8	0
B. E. (Third)	50	0	0
11. B.Sc. (Agr.) (1st and 2nd)	37	8	0
B.Sc. (Agr.) (Third)	60	0	0
12. B.V.Sc. (1st, 2nd and 3rd)	37	8	0
B.V.Sc. (4th)	60	0	0
13. M.B.B.S. (1st, 2nd and 3rd)	37	8	0
M.B.B.S. (4th)	60	0	0
14. B.Ed.	50	0	0
15. M.Ed.	60	0	0
16. Ph.D.	125	0	0
17. Diploma in French and German	25	0	0

*For Distinction or Honours each part of the examination must be passed in the first attempt in the minimum prescribed time.

PANJAB UNIVERSITY

1. **Introductory.**—With the partition of the Panjab, this University was established on 1st October, 1947, under Ordinance No. VIII promulgated by His Excellency the Governor of the East Panjab. This Ordinance was subsequently replaced by the East Panjab University Act No. VII of 1947 on 1st December, 1947. At present its jurisdiction extends over Panjab, Patiala and East Panjab States Union and Himachal Pradesh. The University is a teaching, affiliating and examining body.

2. **Purposes of the University.**—The University is incorporated for the purposes, among others of making provision for imparting education in Arts, Letters, Science and the learned professions and of furthering advancement of learning, the prosecution of original research, with power to appoint University Professors, Readers and Lecturers, to hold and manage educational endowments, to erect, equip and maintain University Colleges, libraries, laboratories and museums, to make regulations relating to the residence and conduct of students and to do all such acts as tend to promote study and research.

3. **Character of the University.**—The University is open to all persons of either sex and of whatever race, creed or class, and it shall not be lawful for the University to adopt or impose on any person any test whatsoever of religious belief or profession in order to entitle him to be admitted thereto as a teacher or student, or to hold any office therein, or to graduate thereat, or to enjoy or exercise any privilege thereof except where such test is specially prescribed in respect of any particular benefaction accepted by the University, having been made a condition thereof by any testamentary or other instrument creating such benefaction.

4. **Constitution.**—The University consists of the Chancellor, the Vice-Chancellor, the Senate, the Syndicate. The Governor of the Panjab is the *ex officio* Chancellor of the University. The Vice-Chancellor is one of the Fellows of the University, nominated by the Chancellor. The Vice-Chancellor holds his office for a period of 2 years but is eligible for re-appointment. The Senate have the entire management of, and superintendence over, the affairs and property of the University in accordance with the Statutes, Rules, and Regulations. The executive Government of the University is vested in the Syndicate which consists of (a) the Vice-Chancellor as Chairman; (b) the Director

of Public Instruction, Panjab ; (c) fifteen *ex-officio* or ordinary Fellows elected by the Faculties. The Registrar is the Chief Executive Officer of the Senate and the Syndicate.

5. **Faculties.**—For the present, the following Faculties have been constituted :—

Faculties**Deans.**

<i>Arts</i> ...	... Bhai Jodh Singh, M.A., 496, Model Town, Ludhiana.
<i>Oriental</i> ...	... Prof. D. C. Sharma, M.A., Head of the University Department of English, University College, Hoshiarpur.
<i>Science</i> ...	... Bawa Balwant Singh, M.Sc., Deputy Director of Public Instruction, Punjab, Simla.
<i>Education</i> ...	... Prof. C. L. Kapur, M.A., Director of Public Instruction, Punjab, Simla, (Chairman.)
<i>Agriculture</i> ...	... Shri B. S. Sawhney, Director of Agriculture, Punjab, Simla.
<i>Medical</i> ...	... Dr. H. B. N. Swift, M.R.C.P., Director of Health Services, Panjab, Simla.
<i>Engineering</i> ...	... Principal S. R. Mehra, Panjab Engineering College, Roorkee.
<i>Veterinary</i> ...	... Major A. C. Aggarwala, M.R.V.C.S., 116, Wellesley Road, New Delhi.
<i>Law</i> ...	... The Hon'ble Chief Justice A. N. Bhandari, I.C.S., High Court, Panjab, Simla.
<i>Commerce</i> ...	... The Hon'ble Mr. Justice Dr. Mehr Chand Mahajan, 5, Hastings Road, New Delhi.

6. Administrative and other Staff.—

Dewan Anand Kumar, M.A.	Vice-Chancellor and Dean of (Cantab.) University Instruction.
Dr. Bhupal Singh, M.A., D.Litt.	Registrar.
Shri J. R. Agnihotri, M.A. (Ph.), B.A. (Hons.) (Oxon), Bar-at-Law.	Deputy Registrar (Administration)
Shri Nand Lal ...	Deputy Registrar (Examinations)
Shri Jagdish Narain... ..	Assistant Registrar (Accounts).
S. Shivcharan Singh, M.Sc., P.E.S. (Retd.)	Assistant Registrar (Conduct).
Shri Kesar Mal	Assistant Registrar (Examinations)
S. Trilochan Singh, M.A., LL.B.	Assistant Registrar (Co-ordination)

Shri Ram Labhaya, B.A. ... Librarian.
 Shri B. L. Gupta, B.A., Assistant Director of Physical
 D.P.E. Training.
 Miss Pushpa Anand, B.A. Deputy Directress of Physical
 Education

7. At the request of the Ministry of Education, Government of India, a Camp College was started at Delhi to help the refugee students who had moved to that place. This facility has proved to be a boon to the uprooted students from West Panjab as will be clear from the fact that the College has now on its rolls about 3,000 students. The establishment of this College facilitates continuance of studies on the part of persons engaged in various pursuits of life by virtue of the fact that the classes in the College are held in the afternoon. The life of the College has been extended to 1955 and admissions are open only to employed persons.

The University maintains a Law College and a Commerce College at Jullundur and a Panjab University College at Hoshiarpur.

8. Location of University Teaching Departments.—

- | | | |
|---|---|---|
| 1. Physics. | } | Panjab University College,
Hoshiarpur. |
| 2. Chemsitry. | | |
| 3. Zoology. | | |
| 4. English. | | |
| 5. History. | | |
| 6. Economics. | | |
| 7. Mathematics. | } | Khalsa College, Amritsar. |
| 8. Botany | | |
| 9. Panjabi. | | |
| 10. Pharmaceutical
Chemistry and
Pharmacognosy. | } | Medical College, Amritsar. |
| 11. Pharmaceutics. | | |
| 12. Physiology. | | |
| 13. Journalism. | } | Panjab University Camp College
Reading Road, New Delhi.
Delhi Polytechnic, Delhi. |
| 14. Chemical Tech-
nology. | | |
| 15. Law. | } | Jullundur City. |
| 16. Commerce. | | |
| 17. Hindi. | | |
| 18. Sanskrit. | | |
| 19. Geography. | } | Government College, Ludhiana. |
| 20. Astronomy. | | |

9. **Teaching Staff—***Astronomy*

Shri R. D. Sayal, M.A., Junior Lecturer.

Botany

Dr. P. N. Mehra, D.Sc., F.N.A.Sc., F.N.I., Professor
and Head of the Department.

Shri R. S. Chopra, M.Sc., Lecturer.

Shri K. S. Thind, M.Sc., Ph.D., Lecturer.

Shri S. K. Malhotra, M.Sc., Jr. Lecturer.

Chemistry

Dr. S. M. Mukherji, M.Sc., Ph.D., D.Sc., Prof. and
Head of the Department.

Dr. B. R. Puri, M.Sc., Ph.D., Lecturer.

Dr. K. S. Narang, M.Sc., Ph.D., Lecturer.

S. Jagjit Singh, M.Sc., Lecturer.

Dr. Ram Chand, M.Sc., Ph.D., Lecturer.

Shri Kundan Lal, M.Sc., Jr. Lecturer.

Shri Inder Sen Gupta, M.Sc., Jr. Lecturer.

Chemical Technology

Dr. M. H. Desai, B.Sc., (Bomb.), Ph.D., D.I.C., (Lond.)
Hony. Head of the Department.

Shri M. D. Bhalla, M.Sc. (Tech.), Lecturer.

Economics

Dr. K. K. Dewett, M.A., Ph.D. Head of the Department.

Dr. S. B. Rangnekar, M.A., Ph.D., Reader.

Shri Gautam Mathur, B.A. (Hons.) (Cantab.), Lecturer.

English

Prof. D. C. Sharma, M.A., M.P., Hony. Prof. and Head
of the Department.

Miss A. G. Stock, B.A. (Hons.) (Oxon.), Diploma in
Education, Reader.

Geography

Shri Raja Ram, B.Sc., (London), Head of the Department.

Shri O. P. Bhardwaj, M.A., Jr. Lecturer.

Shri J. C. Sen, M.A., Jr., Lecturer.

Hindi

Dr. I. N. Madan, M.A., Ph...D., Reader and Head of
the Department.

History

Dr. H. R. Gupta, M.A., Ph.D., D.Litt., Prof. and Head of the Department.

Dr. R. R. Sethi, M.A., Ph.D., Lecturer.

Journalism

Shri P. P. Singh, M.A., Missouri (U. S. A.) & London, B.A., LL.B., Luck., J.D., Lecturer and Head of the Department.

Mathematics

Dr. R. P. Bambah, M.A., (Pb.), Ph.D. (Cantab), Reader.

Punjabi

Dr. Mohan Singh, M.A., Ph.D., D.Litt., Reader and Head of the Deptt.

Pharmaceutics

Dr. H. B. N. Swift, M.R.C.P. (Eng.), L.R.C.P., D.P.H. (London), P.C.M.S., M.B.B.S., Head of the Department.

Dr. K. N. Gaiind, M.Sc., Ph.D. F.R.I.C., A.I.I.Sc., Lecturer.

Pharmaceutical Chemistry and Pharmacognosy

Dr. P.N. Mehra, D.Sc., F.N.A.Sc. F.N.I., Head of the Department.

Dr. Nazar Singh, M.Sc., Ph.D., (Shef.), Lecturer.

Physiology

Dr. Shiv Kumar, M.Sc., M.B.B.S., P.C.M.S., Head of the Deptt.

Physics

Dr. H. R. Sarna, M.Sc., Ph.D., Head of the Department

Shri B. M. Anand, M.Sc., Reader.

Shri B. M. Anand, M.Sc., Reader.

Dr. P. N. Kalia, M.Sc., Ph.D., Lecturer.

Shri Bansilal, M.Sc., Lecturer.

Sanskrit

Dr. Surya Kanta, M.A., D.Litt., Head of the Department.

Shri Jagan Nath, M.A., Lecturer.

Military Training

At the instance of the Government of India, Home Department, the I.A.T.C. and the U.O.T.C. which were functioning under the University were disbanded and in their place the National Cadet Corps has been organised by the Army Headquarters, New Delhi, a branch of which has started functioning in Orissa with its Headquarters at Cuttack.

Inter-Collegiate Debate

An Inter-Collegiate Debate is arranged every year in which two boys from each of the Colleges in Orissa take part. The Chancellor's prize of the value of Rs. 100 is awarded to the best speaker.

The Vice-Chancellor's prize of the value of Rs. 50 is awarded to the second best speaker and the Advocate-General's prize of the value of Rs. 30 is awarded to third best speaker. The University is also awarding a running cup to the College whose student stands first in the Debate.

Inter-Collegiate Tournament

Inter-Collegiate tournament is arranged every year in which all Colleges under the jurisdiction of the University take part. Cups and medals are also awarded to the winners. This University is also taking part in the Inter-University tournaments.

Students' Information Bureau

In order to supply information to students desiring to proceed abroad for advanced studies, a Students' Information Bureau has been established under the University which is continuing to function.

Fellowships

Maharaj Kumari Sudhansumukhi Gajapati Fellowship

In order to promote paddy research this Fellowship of the value of Rs. 840 a year has been endowed and is tenable for two years. The award of the Fellowship is made by the Syndicate in accordance with rules laid down by that Body. The value of the Fellowship was raised to Rs. 1,800 in 1952.

MEDALS

The following Gold Medals are awarded by the University at the Annual Convocation each year for the purpose for which they have been instituted.

(1) *Maynrbbhanj Gold Medal*: is awarded to a student who secures highest number of marks in the aggregate among the successful Honours Degree candidates in the Annual Examination.

(2) *Bhakta Kabi Madhusudan Rao Gold Medal*: is awarded to a student who secures the highest percentage of marks among the candidates at the M.A. (Oriya) and Oriya Honours Degree Examinations.

(3) *Khan Bahadur Rustomji Memorial Gold Medal*: is awarded to a student who secures the highest marks in the M.A. examination in Economics and Political Science.

(4) *Sanatan Pujari Memorial Gold Medal*: is awarded to a student who stands First in Anatomy at the First M.B.B.S. Examination having secured 66 per cent of the full mark for that subject in the minimum and passes in all subsequent examinations for the M.B.B.S. Degree in regular and first chances.

(5) *Jogendranath Bose Gold Medal*: is awarded to a student who passes the Final M.B.B.S. Examination in the First chance and secures highest marks in the aggregate at the Final M.B.B.S. Part II Examination.

(6) *Rani Suratarangini Devi Memorial Gold Medal*: is awarded to a student who passes the LL.B. Part I and Part II Examinations in the first chance having secured the highest marks in the aggregate at the Final (LL.B. Part II) Law Examination.

(7) *Utkal University Gold Medals*: are awarded to students who secure highest number of marks in the aggregate having passed in First Class in a subject for the Master's Degree examination. (The value of each of the Medals is Rs. 100 fixed.)

Scholarships

The following Scholarships are awarded :—

(i) *The Lewis Scholarship* of the value of Rs. 350 a year tenable

Zoology

Dr. Vishwa Nath, M.Sc., Ph.D., (Cantab), P.E.S.
(Retd.), Prof. and Head of the Department.

Dr. Ganpati Prashad Sharma, M.Sc., Ph.D., Reader.
Shri G. L. Arora, M.Sc., Lecturer.

10. The following 68 Colleges are affiliated to the University in different Faculties. The name of the Principal is indicated against each College:—

1. Khalsa College, Amritsar. S. Inder Singh, B.Sc. (Agri.)
(Wales)., Bar-at-Law.
2. Hindu Sabha College, Amritsar. Shri Mehr Chand, M.Sc.
3. Government College for Women, Amritsar. Miss W. F. Jacob, M.A.
4. Baring Union Christian College, Batala. Mr. R. M. Chet Singh, M.A.
5. S. N. College, Qadian ... Bawa Harkishan Singh, M.A.
6. S. A. Jain College, Ambala City. Shri Gian Chand Jain, M.Sc.
7. D. A. V. College, Ambala City. Shri Bahadur Mal, M.A.
8. S. D. College, Ambala Cantt. Shri Sohan Lal B.A., B.T.
9. G. M. N. College, Ambala Cantt. Shri Jaswant Rai, M.A.
10. Vaish College, Bhiwani. Shri Hardwari Lal, B.A.
11. R. S. D. College, Ferozepur. Shri S. B. Sen Gupta, M.A.
12. Government College, Dharamsala. Dr. Mohan Lal Sethi, M.Sc.,
D.Sc.
13. Dev Samaj College for Women, Ferozepur City. Shri P. V. Kanal, M.A., LL.B.
14. D. C. Jain College, Ferozepur City. Shri B. D. Chhabra, M.Sc.
15. M. R. College, Fazilka. Shri Sikandar Lal, M.A. (Hons.)
16. D. A. V. College, Hoshiarpur. Shri Rala Ram, M.A.
17. University College, Hoshiarpur. Dr. Vishwa Nath, M.Sc., Ph.D.,
P.E.S. (Retd.)
18. S. G. G. S. Khalsa College, Mahilpur. S. Harbhajan Singh, B.A. (Hons.),
B.T.
19. D. A. V. College, Jullundur City. Shri Suraj Bhan, M.A. (Lond.).

20. Lyallpur Khalsa College, Jullundur. S. Gurbachan Singh Talib, M.A.
21. Doaba College, Jullundur. Shri M. C. Khosla, M.Sc.
22. Kanya Mahavidyala, Jullundur. Kumari Lajja Vati.
23. A. S. College, Kalalmajra, Khanna. Shri Sri Ram, M.A.
24. Government College, Ludhiana. Dr. Trilochan Singh, M.A., Ph.D.
25. Govt. College for Women, Ludhiana. Miss S. Sen, B.A.(Hons.) (London).
26. Arya College, Ludhiana. Shri S. R. Suri, M.Sc.
27. G. H. G. Khalsa College, Gurusar Sadhar (Ludhiana). S. Iqbal Singh, B.A., B.T.
28. D. M. College, Moga ... Shri R. K. Kumar, M.A.
29. Ahir College Rewari ... Shri Wadhawa Ram, M.A.
30. Government College, Rohtak. Shri R. R. Kumria, M.A.
31. Vaish College, Rohtak... Sardar H. K. Bhattacharya, M.A.
32. A. I. Jat Heroes Memorial College, Rohtak. Shri S. N. Sanyal, M.A.
33. Government College, Rupar. Shri Ugra Sen, M.A.
34. Dayal Singh College, Karnal. Shri S. R. Grover, M.A.
35. S. D. College, Simla ... Shri F. C. Arora, M.A.
36. B. M. College, Simla ... Shri Mahavir Singh, M.A. (Cantab.)
37. Lawrence Royal Military School, Sanawar. Shri E. P. Carter, M.A., O.B.E.
38. Panjab University Camp College, New Delhi. S. Niranjana Singh, M.Sc.
39. Dayanand College, Hissar. Shri Gian Chand Majajan, M.A.
40. Hindu National College, Haryana. Dr. L. C. Khurana M.A., Ph.D.
41. Government College, Hissar. Shri Gomti Parsahd, B.A. (Oxon) Bar-at-Law.
42. Rajindra College, Bhatinda. Dr. C. L. Parti M.Sc., Ph.D.
43. Malerkotla College, Malerkotla. Shri B. N. Chopra, M.A., B.T.
44. Brijindra College, Faridkot. Dr. Jaswant Singh, M.Sc., Ph.D.
45. Mahendra College, Patiala. Dr. Hardit Singh Dhillon, M.A., Ph.D.

46. Ripudaman College, Nabha. Shri B. D. Batta, M.Sc.
47. Randhir College, Kapurthala. Shri Nand Kishore, M.A.
48. Ranbir College, Sangrur. S. Balwant Singh, M.A.
49. Ramgarhia College, Satnampur (Phagwara). S. Kirpal Singh, M.A.
50. Victoria Girls College, Patiala. Mrs. G. Parampal Singh, M.A.
51. Vallabh Mahavidyala, Mandi. Shri Raj Narain Mathur, M.A.
52. Law College, Jullundur. Shri C. L. Anand, M.A., LL.B. (London), Bar-at-Law.
53. Govt. Training College for Women, Simla. Mrs. S. Y. Harvey, M.A., L.T.
54. Govt. Training College, Jullundur. Dr. A. C. Joshi, M.Sc., D.Sc.
55. Panjab Engineering College, Roorkee. Shri S. R. Mehra, A. M. Inst., C. E. (Eng.), M.E.E. (Ionia), C.E. (Roorkee).
56. Panjab University Commerce College, Jullundur. Shri I. M. Kapur, M.Sc. (Lond.)
57. Bikram College of Commerce, Faridkot. Shri Raj Narain, M.A., B.Com., LL.B.
58. Panjab Veterinary College, Hissar. Shri B. N. Handa, B.Sc., M.R.C.V.S.
59. Medical College, Amritsar. Dr. K. L. Wig, M.B.B.S., M.R.C.P., M.R.C.S., F.A.C.P.
60. Govt. Agricultural College, Ludhiana. Shri H. R. Saini, M.Sc.
61. Khalsa College for Women, Sidhwan Khurd. Miss S. K. Avtar Singh, M.A., B.T.
62. Government College, Muktsar. S. Sachdev Singh, M.Sc.
63. Government College, Tanda. Shri R. R. Malik, M.Sc. Urmar.
64. S. D. College, Hoshiarpur. Shri S. K. Kapur, M.A., P.E.S. (Retd.)
65. Chhotu Ram Arya College, Sonapat. Shri H. C. Bali, M.A.
66. Dronacharya S. D. College, Gurgaon. Shri S. L. Bahl, M.A.

67. Radha Krishna Arya Col- Shri Nand Lal, M.A.
lege, Nawan Shahr
Doaba.
68. The Technological Insti- Dr. D. L. Sen, M.Sc. (Tech.)
tute of Textiles, Bhiwani (Manch.), F.R.I.C. (London).

11. Examinations and their durations—

Intermediate Arts and Science, 2 years after Matriculation; B.A., B.Sc. (Pass), 2 years after Intermediate ; First Examination in Agriculture, 2 years after Matriculation ; B.Sc. (Agri.) 2 years after first examination in Agriculture, B.Com., three years after Intermediate ; B.Sc. (Engg.), 3 years after Intermediate ; LL.B., 2 years after graduation; LL.B., (Final), one year after LL.B. ; B.T., one year after graduation ; B.V.Sc., 4 years after Intermediate Science ; Bachelor of Pharmacy, 3 years after Intermediate (Medical Group) ; B. Sc. (Hons.) School, 3 years after Intermediate Science; M.B.B.S., 5 years after pre-medical examination; B.Sc. (Textiles), 3 years after Intermediate Science.

Higher Degrees

M.A. in English, Mathematics, History, Political Science, Economics, Sanskrit, Hindi, Panjabi, Philosophy, Psychology, Geography ; 2 years after graduation, M.Sc., in Agriculture ; 2 years after B.Sc. Agriculture, M.Sc. Hons. School in Physics, Chemistry, Botany, Zoology, Chemical Technology ; one year after B.Sc. Honours School.

M.Com., LL.M., M.S., M.D., Master of Pharmacy, M.V. Sc., Ph.D., D.Litt., D.Sc., D.O.L., and LL.D. Degrees are also granted by this University.

Diplomas

Diploma in Journalism, one year after Graduation ; Diploma in Tuberculosis Diseases (D. T. D.), one year after M.B.B.S. for those who have held house appointments in a recognised teaching hospital and 2 years for those who have been engaged in the practice of medicine from the date of obtaining the qualification; Diploma in Ophthalmic Medicine and Surgery (D. O. M. S.), one year after M.B.B.S. or L.M.S., Diploma in Laryngology and Otology (D. L. O.) Graduates in the Faculty of Medicine can take this examination at any time after undergoing the prescribed course.

12. Publication Bureau—

As a part of the policy to replace English as medium of ins-

truction and examinations a Bureau of Publication was established in 1948 with the following aims and objects :—

1. Prepare and encourage the production and translation of text-books ;
2. Translate and encourage the translation of standard works from other languages ; and
3. prepare and encourage the publication of standard works with a view to enrich the literature in both the languages (Hindi and Panjabi).

Prof. J. B. Seth, M.A., I.E.S. (Retd.) is Secretary of this Bureau.

University Publications

The University publishes Arts and Science Journals from time to time. The Chief Editor of the Arts Journal is Prof. D. C. Sharma, M.A., M.P., Head of the Panjab University, English Department and of the Science Journal, Dr. Vishwa Nath, M.Sc., Ph.D., Principal, Panjab University College, Hoshiarpur, and Head of Panjab University, Zoology Department.

13. Library—

The Panjab University Library located in U. S. Club at Simla, has got over 33,000 volumes, 400 manuscripts and subscribes to about 380 journals. About a lac of rupees is being spent annually on the purchase of books and journals to build up the Library.

14. Military Training—

The Government of India, Ministry of Defence, have allocated four Battalions, two Independent Companies of Infantry, one Artillery Unit consisting of 60 Cadets and one Girls Troop, to the Panjab University, and these have been assigned to the affiliated colleges.

15. Scholarships.

The following scholarships are awarded :—

<i>Name of Examination.</i>	<i>No. of Scholarships</i>
Matriculation	80
Intermediate	30
B.A. standing first in aggregate ...	1

B.Sc. standing first in aggregate...	1
B.A. Honours	1 for each subject
B.A. (Hons.) in Mathematics ...	2
B.Sc. (Hons.) School in Botany, Zoology and Physics... ..	3 (1 each)
B.Sc. (Hons.) School in Chemistry	2
B. Com. Part I	1
B. Pharmacy Part I	1

16. Extension Lectures—

The University has also been organizing extension lectures by inviting specialists in their subjects to address the students in various colleges at central places. The lectures are of a general academic nature and are delivered on payment of a nominal fee.

17. Total number of students on 31-3-1952:—

1. Affiliated Colleges	25918
2. University Teaching Departments	720

18. Financial statement for the year 1951-52:—

	Rs.	a.	p.	
1. Government Grants	774,134	15	0	(Recurring Rs. 3,23,000. (Non-recurring Rs. 4,51,134-15-0)
2. Fees	39,554	18	14	0
3. Miscellaneous	1,92,776	1	6	
4. Endowments	4,500	0	0	
5. Donations			<i>Nil</i>	
Total	49,26,829	14	6	

Proportion of Government grant to the other sources of income was 15.73 per cent (Proportion according to recurring grant was 6.56 per cent. Proportion according to non-recurring grant was 9.17 per cent.

19. Subjects in which facilities for post-graduate exist—English, Economics, Zoology, Physics, Chemistry, History, Botany and Mathematics.

20. Foreign Information Bureau—

The University has established a Foreign Information Bureau for the purposes of attending to enquiries made regarding technical

for two years in the Ravenshaw College is awarded to an Oriya Graduate of the University for Post-Graduate study in any Science subject on rotation.

(ii) *The Jagannath Scholarship*: Two Scholarships of the value of Rs. 10 each per month is awarded for a period of two years in the Ravenshaw College to an I.A. or I.Sc. passed Oriya student securing the highest marks in the aggregate and reading B.A. or B.Sc. but not holding any other Scholarship.

(iii) *Utkal Co-operative Cloth and Yarn Syndicate Scholarship*: Two scholarships of the value of Rs. 25 each per month tenable for a period of two years in the Ravenshaw College are awarded—One to a student who is a permanent resident in Orissa and secures the highest mark at the B. A. Examination and another to a student who is a permanent resident in Orissa and secures the highest mark at the B.Sc. Examination and both read in the 5th year class having passed their respective degree examination at the first chance in the preceding annual examination subject to their not holding any other scholarship.

(iv) *Philip Memorial Scholarship*: Of the value of Rs. 8 per month tenable for a period of two years in a College affiliated to the Utkal University is awarded to a regular student who having passed the Annual I.Sc. Examination takes admission in the 3rd year B.Sc. Class and would have obtained a position next to the candidate or candidates eligible for Government Scholarship or any other Scholarship in the I.Sc. Examination.

Endowment for Foreign Studies

A sum of Rs. 12,000 has been donated to form the nucleus of a Fund for giving interest-free loans to young men and women for going abroad for higher studies. The University has also made provision of a sum of Rs. 10,000 in its budget estimates for the purpose during the current year.

Institution of a Chair in Physics

A sum of Rs. 8,00,000 has been donated by His Highness the Maharaja of Mayurbhanj to create a Chair in Physics under the auspices of the University. The Chair in Physics at the Post-graduate stage has been created and the Course has started functioning in the Ravenshaw College with effect from the beginning of the academic Session 1951-52.

Other Endowments for various purposes

1. A sum of Rs. 50,200 has been donated by Rai Bahadur Sadhu Charan Mohanty, Retired District Sessions Judge and Member, Orissa Public Service Commission by way of a Trust known as "The Utkal Scientific Research Fund," to form a nucleus for encouragement of research in different branches of Science.

2. An Annual Donation of Rupees one lac has been made by the Kalinga Foundation Trust Fund for the advancement of study and research in Geology under the auspices of the University.

The first instalment of Rs. 1,00,000 for the purpose has already been received and arrangement are afoot for starting the study and research in Geology.

3. A Donation of Rs. 1½ lacs has been made by Messrs. Birla Brothers for the construction of the Law College Hostel of the Utkal University and a further donation of Rs. 50,000 for the construction of the Science Block of Gangadhar Mehar College, Sambalpur.

4. A Donation in respect of the movable and immovable property disposed of by a Will made by Srimati Santisudha Dasi has been received by the University for awarding Scholarships to students in the Sriram Chandra Bhanj Medical College, Cuttack.

5. A Donation of Rs. 48,000 has been made by late Rai Bahadur Chaudhury Narsing Charan Mahapatra of Jajpur for improvement of the University Press, Oriya Language and Literature and for the improvement of an Intermediate College, a High School and a Sanskrit School within the University area.

Number of Successful candidates in the Different Examinations for the years 1951 and 52.

<i>Name of Examinations.</i>	1951	1952
Matriculation (Annual)	2,387	2,217
Matriculation (Supplementary)	813	847
* Matriculation (Thechnical Annual)	4	
Matriculation (Supply. Tech.)	1	
I.A. (Annual)	406	299

training and professional studies within the Republic of India and from students desirous of going abroad for higher studies in the Universities in the U. K., U. S. A., Australia, New Zealand, Canada, France, and Japan.

21. **Sports—**

Shri B. L. Gupta, B.A., D.P.E., is Assistant Director of Physical Training and is in-charge of the Physical Welfare of students. In addition each affiliated college has a Physical Director who conducts sports and other physical activities among the students of the college.

PATNA UNIVERSITY

Introduction

Character of the University

The Patna University Act of 1917 was repealed in 1951 by the State Legislature and another Act XXV of 1951 was passed with a view to establish a teaching and residential University at Patna with full control over all Government and non-Government colleges situated within the Municipal limits of the town. This Act came in force from the 2nd January, 1952. The affiliating and examining functions of the Old University were transferred to the Bihar University in respect of colleges of the State of Bihar situated outside the area of the Patna Municipality and the control over the Matriculation Examination was transferred to the School Examination Board created by two different Acts which came in force from the same date, i.e., the 2nd January, 1952.

Officers of the University

Chancellor :

Shri Madho Shrihari Aney (from 2nd January to 14th June, 1952).

Shri Ranganath Ramchandra Diwakar (from 15th June, 1952).

Vice-Chancellor :

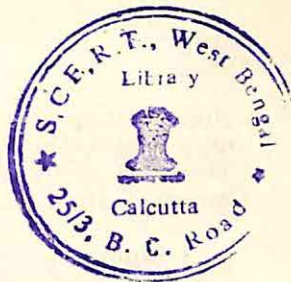
Dr. K.N. Bahl, D.Sc.(Panj.), D.Phil., D.Sc.(Oxon.), F.R.A.S.B.,
F.N.I. (up to 2nd February 1953).

Treasurer :

Shri Rama Charitra Singh, M.Sc.

Registrar :

Shri Jagatnandan Sahay, M.A. (Pat.), T.D. (Lond.).



Assistant Registrar :

Shri Syed Yawar Hussain, B.A. (Pat).

Budget and Accounts Officer :

Shri Anant Narayan Prasad, B.A. (Hons.)

Deans of the Faculties :

Shri Kalimuddin Ahmad ...	Dean of the Faculty of Arts.
Shri Ganesh Prasad Dube...	Dean of the Faculty of Science.
Shri Bhagwati Kumar Sinha	Dean of the Faculty of Law.
Shri Ali Akbar Kazimi ...	Dean of the Faculty of Education.
Dr. Ramjee Prasad Verma	Dean of the Faculty of Engineering.
Dr. Basudeva Narayana ...	Dean of the Faculty of Medicine.
Dr. Babu Ram Misra ...	Dean of the Faculty of Commerce.

University Departments for Post-graduate teaching with the names of the Heads of Departments :—

1. Ancient Indian History and Culture.	Dr. A. S. Altekar.
2. Applied Economics and Commerce.	Dr. B. R. Misra.
3. Applied Psychology	... Sri D. N. Sinha.
4. Arabic	... Sri H. M. Quddus.
5. Botany	... Dr. R. P. Roy.
6. Chemistry	... Dr. P. C. Sinha.
7. Economics	... Dr. H. Lal.
8. Education	... Sri A. A. Kazimi.
9. English	... Dr. R. K. Sinha.
10. Experimental Psychology	... Sri M. Z. Abdin.
11. Geology	... Dr. S. C. Chatterji.
12. Geography	... Dr. P. Dayal.
13. History	... Dr. K. K. Datta.
14. Hindi...	... Dr. Bishwa Nath Prasad.
15. Labour and Social Welfare	Sri A. D. Singh.
16. Mathematics	... Dr. N. S. Nagendra Nath.
17. Maithili	... Dr. Sudhakar Jha.
18. Political Science	... Sri V. K. N. Menon.
19. Persian	... Dr. Iqbal Hussain.
20. Philosophy	... Dr. D. M. Datta.
21. Physics	... Sri G. P. Dube.
22. Sanskrit	... Dr. T. P. Choudhary.
23. Sociology	... Sri N. Prasad.

24. Statistics	...	...	...	Dr. D. N. Lal.
25. Urdu	...	...	...	Sri S. A. Ahmad.
26. Zoology	...	...	...	Dr. Suresh Keshava.

Colleges and Institutes.

The following are the Constituent Colleges and Institutes of the University with the names of their Principals and Directors :—

<i>College.</i>	<i>Principal.</i>
1. Patna College ...	Sri K. Ahmad, M.A. (Pat.), B.A. (Cantab.)
2. B. N. College ...	Sri S. M. Moinul Haq, M.A. (Cal.)
3. Science College ...	Sri M. Q. Doja, B.A. (Cantab.)
4. Patna Women's College	Mother M. Theodosia, A. C., M.A.
5. Magadh Mahila College	Smt. V. Gupta, M.A. (Pat.).
6. Patna Training College	Sri A. A. Kazimi, B.Sc. (Pat.), M.A. (Cantab.)
7. Bihar College of Engineering.	Dr. R. P. Verma, B.C.E., D.I.C., M.Sc. (Lond.), D.Sc. (M.I.T.), A. M. I. E., (India), A.M.I. Struct., E., A.M.I.M. and Cy.E. (Lond.), A. M. A., S. C. E., A.M.I.E.E., M.A.S.M.E.
8. P. W. Medical College	Dr. B. Narayana, M.Sc., M.B. (Cal.), Ph.D. (Edin.), F.R.S. (Edin.) F.N.I.
9. Patna Law College ...	Sri B. K. Sinha, B.A., B.L.
10. Women's Training College.	Smt. Shakuntala Sinha, M.A.

<i>Institute.</i>	<i>Director.</i>
1. Institute of Psychological Research and Service.	Sri D. N. Sinha, M.A. (Pat.), M.Sc. (Cantab.)
2. Institute of Music	Sri R. L. Roy, B.Sc. (Hons.)

Boards of Courses and Studies

There is a Board of Courses and Studies for each of the following subjects :—

1. Hindi, 2. Sanskrit, 3. English, 4. Urdu 5. Maithili,
6. Bengali, 7. Arabic, 8. Persian, 9. History,

10. Ancient Indian History and Culture, 11. Economics, 12. Labour and Social Welfare, 13. Sociology, 14. Political Science, 15. Philosophy, 16. Experimental Psychology, 17. Geography, 18. Music, 19. Domestic Science, 20. Applied Psychology, 21. Mathematics, 22. Physics, 23. Chemistry, 24. Botany, 25. Zoology, 26. Geology, 27. Statistics, 28. Education, 29. Law, 30. Commerce, 31. Engineering, 32. Medicine.

Note.—The functions with respect to the following subjects are performed by the Boards of Studies noted against each :—

- | | | | | |
|---|-----|-----|-----|---|
| 1. French & German | ... | ... | ... | Board of Courses of Studies in English. |
| 2. Pali | ... | ... | ... | Board of Courses of Studies in Sanskrit. |
| 3. Nepali | ... | ... | ... | Board of Courses of Studies in Hindi. |
| 4. Oriya | ... | ... | ... | Board of Courses of Studies in Bengali. |
| 5. International Relations and Public Administration. | | | | Board of Courses of Studies in Political Science. |

Constitution of the University

The following are the authorities of the University :—

The Senate, the Syndicate, the Academic Council, the Faculties, the Boards of Courses and Studies, and such other authorities as may be declared by the Statutes to be authorities of the University from time to time.

The following are the officers of the University :—

The Chancellor, the Vice-Chancellor, the Treasurer, The Registrar, the Assistant Registrar, the Budget and Accounts Officer, the Deans of the Faculties, and such other persons as may be declared by the Statutes to be the officers of the University from time to time.

Number of students in the University under different Faculties in 1952.

Faculty of Arts	...	...	...	...	3,063
Faculty of Science	...	...	...	...	1,465

Faculty of Commerce	...	...	...	255
Faculty of Medicine	...	...	...	581
Faculty of Engineerig	...	...	...	324
Faculty of Education	...	...	...	244
Faculty of Law	...	...	...	709

Number of Successful Candidates in the different Examinations of 1952

Name of Examination	Annual		Supplementary	
	No. of candi- dates appear- ed.	No. passed.	No. of candi- dates appear- ed.	No. passed.
I.A.	915	458	337	117
I.Sc.	440	248	113	48
B.A. (Hons.)	272	214		
B.A. (Pass)... ..	464	222	292	89
B.Sc. (Hons.)	79	48		
B.Sc. (Pass)	111	64	49	30
I.Sc. (Eng.) April 1952	64	48	July-37	28
B.Sc. (Eng.) Part I (April)	57	38	" 37	25
B.Sc. Eng. Part II Electl. (April)	3	3		
B.Sc. Eng. Civil (April) ...	84	54	" 31	26
Inter M.B.B.S. (April) ...	108	72	Sept.-34	22
Final M.B.B.S. Part I (April)	104	76	Sept.-43	35
Final M.B.B.S. Part II (April)	135	78	Sept.-79	35
M.A. Part I	425	310		
M.A. Part II	413	361		
M.Sc. Part I	116	63		
M.Sc. Part II	102	64		
Law Part I (Feb.)	359	117	May-515	278
			Sept.-366	197
Law Part II (Feb.)	126	106	May-147	115
			Sept.-204	153
Dip-in-Lab. & Social Wel- fare (July)	25	12		
Dip in-International Re- lations (July)	3	2		

Diploma in Education 1952 (May)

					No. of candidates appeared.	No. passed.
Primary	...	...	...	...	25	25
Secondary	...	...	...	...	93	81

**Dip-in-Public Administration and L. G. Examination
1952**

					No. of candidates appeared.	No. passed.
					16	6
M.-Ed. (May)	...	...	...	...	4	4
Ph.D. ...	...	...	...	...	1	1
D.Litt....	...	...	...	...	1	1
M.S. ...	...	...	...	...	11	4
M.D. ...	...	...	...	...	12	4

Certificate in Music Examination 1952.

	No. of candidates appeared.	No. passed.
	8	8

B. O. L. Examination 1952

	No. of candidates appeared.	No. passed.
	1	1

Research Scholarships :

I. An annual sum of Rs. 30,000 was spent on awarding Research Scholarships of the value of Rs. 150 per month each.

II. The scholarships were distributed as follows :—

(i) Faculty of Arts	...	...	...	...	5
(ii) Faculty of Science	...	...	...	...	5
(iii) Faculty of Medicine	...	...	...	...	2
(iv) Faculties of Engineering, Law, Commerce and Educa- tion	...	...	...	...	3

Readerships :

There are five Readerships in the University, *viz.* :—

1. Banaili Readership in Economics.
2. Ramdin Readership in Hindi.
3. Sukhraj Rai Readership in Natural Science.
4. Maharajadhiraja Darbhanga Readership in Ancient Indian History and Culture.
5. Dr. S. K. Sinha Readership in International Law or Comparative Politics.
6. Hathwa Readership in Statistics.

Hathwa Fellowships :

An allowance of Rs. 150 per month is paid to the Hathwa Fellow. There are two Fellowships in the following subjects :—

1. Sanskrit.
2. History.

Hathwa Scholarships :

Hathwa Scholarships are awarded in the following subjects as noted against each :—

- | | |
|--|-----|
| 1. Mechanical Engineering @ Rs. 60 per month | — 2 |
| 2. Electrical Engineering @ Rs. 60 per month | — 2 |
| 3. Agriculture @ Rs. 50 per month | ... |
| 4. Higher Training in Education @ Rs. 60 | ... |
| per month | ... |
| 5. Medicine @ Rs. 60 per month | ... |

Sir Ganesh Dutta Singh Loan Scholarship.—Loan Scholarships are granted from this Fund to permanent residents of the area within the jurisdiction of Patna University and are awarded for higher studies in Medicine or in Science in India or abroad to the officers in the medical and public health services of Government and local bodies in the said area, provided that the

local body concerned guarantees repayment of the loan. The loan scholarships are also awarded to Professors, Lecturers or Demonstrators who are in the service of the Government or in the colleges which are aided from Government Funds, in the following scientific subjects namely, Physics, Chemistry, Botany, Geology, Physiology. The value of the loan scholarships to be given in each case, and the instalments in which it shall be paid and recovered is determined by the Syndicate. The selected candidates are required to execute a bond in the prescribed form and to insure their life in favour of the University for a sum equal to the amount of the loan scholarship to be paid. The policy is reassigned to the candidates on their paying all the amounts due.

Sir Ganesh Singh Trust Fund.—Loan scholarships are granted from this Fund to candidates who are natives of or domiciled in the Patna, Tirhut, Bhagalpur or Chotanagpur Divisions and are awarded for higher and special studies in India or abroad to the candidates who wish to take up the following subjects, namely : (a) any subject which is likely to help the development of Industry or Agriculture in the Province, (b) Physics, Chemistry, Botany, Engineering or Psychology, Military Science, Navigation or the like Science, (c) such vocational subjects as printing or pencil making which may help to develop useful cottage industries, and (d) the comparative study of different schools of Medicine. The value of the loan scholarships to be given in each case, and the instalments in which it shall be paid and recovered, are determined by the Vice-Chancellor, Patna University. The interest at 3 per cent. per annum is chargeable on the loan which can be waived by the Vice-Chancellor. The selected candidate is required to execute a bond on the prescribed form, to provide a surety who is to execute a surety bond pledging his immovable properties of a value not less than double the amount of the loan and to insure his life in favour of the Vice-Chancellor for a sum equivalent to the total amount of the scholarship estimated to be paid.

There are also a number of University Medals : A gold medal and a prize of the value of Rs. 200 for the candidate standing first in the First Class in each subject of the M.A. and M.Sc., examinations ; Gait English Medal, Shrimati Radhika Sinha Medal, the Gidhaur Gold Medal, Bakshi Ramyad Sinha Medal, Madhava Gold Medal and Prize, Shaw Memorial Medal, I. N. Chandra Gold Medal, Rabindranath Mukherjee Medal, Shrimati Ram Kishori Medal, Sifton Hindi Gold Medal, Sifton Urdu Gold Medal, Macpherson Gold Medal, Jyotirmoyee Silver Jubilee Commemoration Medal, Wheeler Gold Medal, Sir

Jwala Prasad Medal, Rai Saheb Ramji Das Gupta Gold Medal, Walford Medal, Linlithgow Gold Medal, Sifton Gold Medal for Medicine, Sir Ali Imam Gold Medal, Nirsunarain Singh Gold Medal, Raja Sir Raghunandan Gold Medal, Rai Bhadeshwari Gold Medal, Maheshwar Memorial Gold Medal, Motilal Dhan-dhanian Gold Medal, Tara Prasad Srivastava Medal, Rabindra Nath Dutt Memorial Medal, Rev. Bhai Kedar Nath Memorial Gold Medal, Shoila Bala Gold Medal, Radhakrishna Memorial Gold Medal, Langat Singh Gold Medal, Sita Devi Memorial Gold Medal, Brajnandan Singh Memorial Gold Medal, Swarna Kamal Sahitya Gold Medal, Justice Kulwant Sahay Gold Medal, Stephenson Gold Medal and Ram Rani Devi Gold Medal, awarded to students who pass prescribed examinations and obtain the highest number of marks in a particular subject.

Patna University Library

Total number of books in the Library in 1952 was 55,586 of which 3,000 books were added during the year.

Manuscripts Section

In 1952 the Manuscript Section contained 255 manuscripts, in Sanskrit, Hindi and Maithili and 170 manuscripts in Arabic Persian and Urdu.

Periodicals

Number of Newspapers, Periodicals and Journals received during 1952 was 338 (282 subscribed and 56 received free).

Publication and Extension Work

The Lectures of the University Readers are published by the University at its own cost. The following lectures have so far been published and are available for sale :—

1. The Moghul Administration (First Series) by Sir J. N. Sarkar.
2. Principles and Methods of Physical Anthropology by Sri Sarat Chandra Roy.
3. The Indian Fiscal Problem by Sir J. C. Coyajee, Kt.
4. The Buddhistic Philosophy of the Theraveda School, as Embodied in the Pali Abhidharma by N. K. Bhagwat.
5. The Place of Partial Differential Equations in Mathematical Physics by Dr. Ganesh Prasad,

6. The Moghul Administration (Second Series) by Sir J. N. Sarkar.
7. Nadir Shah in India by Sir J. N. Sarkar.
8. Recent Investigations Concerning the Constitution of Matter by Dr. E. P. Harrison.
- *9. The Glories of Magadha by Mr. J. N. Samaddar.
10. The Main Currents of Maratha History by Mr. G. S. Sardesai.
11. Comparative Colonial Policy by Dr. V. S. Ram.
12. The Rural Economy of India by Dr. R. K. Mukherji.
13. Magadhan Literature by Mahamahopadhyaya H. P. Sastri.
14. Early Inscriptions of Bihar and Orissa by Dr. A. P. Banerjee-Sastri.
15. Some Aspects of Fiscal Reconstruction in India by Dr. Gyan Chand.
16. Educational Ideas and Institutions in Ancient India by Dr. S. C. Sarkar.
17. The value of Scientific and Intuitive Thought in the Advancement of Modern Medicine by Dr. E. W. H. Cruickshank.
18. Language in Education by Dr. M. P. West.
19. Economics of Protection in India by Dr. V. G. Kale.
20. Atomic Physics by Dr. Meghnad Saha.
21. India and the International Labour Organisation by Dr. P. P. Pillai.
22. Hindu Law in its Sources by Dr. Ganganath Jha.
23. Indian Banking with Special Reference to Bihar and Orissa by Sir John A. Hubback, Kt.
24. The Medical and Economic Aspects of some Indian Medicinal Plants by Lt.-Col. R. N. Chopra.
25. New Conceptions in Bio-Chemistry by Dr. N. R. Dhar.
26. High Temperature Flames and their Thermodynamics by Dr. H. K. Sen.
27. Bihar and Orissa During the Fall of the Moghal Empire by Sir J. N. Sarkar.
28. Some Aspects of the Census Operations of 1931 in Bihar and Orissa by Mr. W. G. Lacey, I.C.S.
29. Federal Finance in India by Prof. K. T. Shah.
30. Contribution of Hindi Literature to Indian History by Rai Bahadur Sukhdeo Bihari Misra.
31. The Origin and Growth of the Hindi Language and its Literature by Pt. Ayodhya Singh Upadhyaya.

*Note—The books marked with an asterisk are out of stock.

32. Introduction to the Bio-Chemistry of Nitrogen Conservation by Dr. Gilbert J. Fowler.
33. Tuhfa-i-Sami Edited by Dr. Iqbal Hussain.
34. Some Aspects of Roman Law by Dr. James Mackintosh.
35. Lectures on Shakespeare by Mr. J. A. Chapman.
36. The Early Persian Poets of India by Dr. Iqbal Hussain.
- *37. The Psychological Attitude of Early Budhist Philosophy by Rev. Anagarika Brahmachari Govinda.
38. Federal Finance by Mr. Mannu Subedar.
39. Wave Mechanics by Dr. V. V. Narlikar.
- *40. Regulation of Wages and other Problems of Industrial Labour in India by Dr. D. R. Gadgil.
41. Development of Basic Chemical Industries in Bihar by Mr. Phuldeo Sahay Verma.
- *42. Financial Burden of the War on India by Mr. C. N. Vakil.
43. Problems of India's Constitution by Prof. A. B. Rudra.
- *44. Indian Economy During the War by Dr. L. C. Jain.
45. Economic Policy and Programme for Post-War India by Sri N. R. Sarkar.
46. Modern Development in the Chemistry of Boron by Dr. R. C. Ray.
47. The Dutch in Bengal and Bihar by Dr. K. K. Dutta.
48. Economic Transition in the Bengal Presidency (1793—1833) by Dr. H. R. Ghosal.

Residence and Cost of Living

The University controls the residence of students. Students who do not reside with their parents or guardians are required to reside in college hostels, or University hostels. The University provides hostel accommodations for nearly 40 per cent of the students.

Provision for Safeguarding Health, Medical Inspection, Discipline, etc.

The University controls the residence, health and discipline of the students directly. The power of control is vested in the Principals of colleges and Wardens of hostels. Doctors are attached to all hostels.

* Note—The books marked with an asterisk are out of stock.

Courses of Study, Examinations and Degrees

Admission to the University is open to those who have passed the Secondary School Examination of the Bihar Secondary School Examination Board, or any other examination recognised by the University as equivalent thereto.

The University offers the Degrees of B.A. (Pass and Honours) M.A., Ph.D. and D.Litt. in Arts; B.Sc. (Pass and Honours), M.Sc. Ph.D. and D.Sc. in Science; and B.Com. and M.Com. in Commerce. The professional degrees are: B. L., and Doctor of Law in Law; Master of Education in Education; B.Sc. (Eng.) and M.Sc. Engineering, M.B., B.Sc.; M.Sc. and M.D. in Medicine.

Diplomas are awarded in Teaching, International Relations, and Public Administration.

Certificates are awarded in Vocal and Instrumental Music.

Entrance Qualification and Duration of Courses

Name of examination.

Qualification for admission and duration of course.

I.A., I.Sc. and I.Com. ...	A student who has passed the Matriculation Examination or any other examination equivalent thereto recognised by the University. A student for admission in the I.Sc. class must have offered Additional Mathematics. The courses extend over two academic years.
----------------------------	---

B.A.	A student who has passed the I.A. examination or any examination equivalent thereto recognised by the University. Students who have passed the I.Sc. examination are admitted provided they pass the qualifying examination in any Arts subject which they did not offer at the I.Sc. stage except Mathematics of the I.A. examination. The course extends over two academic years.
-------------	---

<i>Name of Examination</i>	<i>Qualification for admission and duration of course</i>
B.Sc. 	A student who has passed the I.Sc. examination or any examination recognised by the University as equivalent thereto. The course extends over two academic years.
B.Com. 	A student who has passed the I.Com. examination or any examination recognised by the University as equivalent thereto. The course extends over two academic years.
I.Sc. (Eng.) 	A student who has passed the I.Sc. examination or any examination recognised by the University as equivalent thereto with Physics, Chemistry and Mathematics as three of his subjects.
B.Sc. (Eng.) Part I ...	A student who has completed a regular course of study for not less than one academic year in those subjects which he offers after passing the I.Sc. (Eng.) examination.
B.Sc. (Eng.) Part II ...	A student who has completed a regular course of study for not less than one academic year after passing the B.Sc. (Eng.) Part I examination.
M.A. 	A student who has passed the B.A. examination or any examination recognised by the University as equivalent thereto; a student who has passed the B.Sc. examination or any examination recognised by the University as equivalent thereto provided he passes the qualifying examination in English

<i>Name of examination</i>	<i>Qualification for admission and duration of course</i>
	and Vernacular Composition of the B.A. stage ; and a student who has passed the B.Com. examination or any examination recognised by the University as equivalent thereto, is allowed to offer Economics only at the M.A. examination. The course extends over two academic years.
M.Sc. 	A student who has passed the B.Sc. examination or any examination recognised by the University as equivalent thereto. The course extends over two academic years.
M.Com. 	A student who has passed the B.Com. examination or any examination recognised by the University as equivalent thereto. The course extends over two academic years.
<i>Note.</i> —If a student is studying either M.A. or M.Sc. or M.Com. and has also joined Law or any Diploma course, he is not permitted to attend lectures for either of these courses during the second academic year of his study for M.A., M.Sc. or M.Com. examinations.	
Dip.-in-Ed. 	A student who has passed B.A. or B.Sc. examination or an examination recognised by the Syndicate as equivalent thereto. The courses of study extend over one academic year.
M.Ed. 	A student who has passed Dip.-in-Ed. examination and has also passed a degree examination in the subject in which he proposes to specialise. The duration of the courses is one academic year.

<i>Name of examination</i>	<i>Qualification for admission and duration of course</i>
B.L.	A student who has passed the B.A. or B.Sc. examination or B. Com. examination or B.Sc. (Eng.) examination or any examination recognised by the University as equivalent thereto. The courses of study extend over two academic years.
M.L.	A student who has passed the B.L. examination or some other examination recognised by the Syndicate as equivalent thereto, may be examined for the degree of Master of Law provided that none shall be allowed to appear at the examination unless two years have elapsed since the date of his passing the B.L. examination or any equivalent examination.
Doctor of Law	Any Master of Law of the University of Patna, or of any other University who is permanently resident in the State of Bihar, may, at any time after one year from the date on which he passed the examination for the degree of Master of Law, can offer himself for the degree of Doctor of Law.
M.B.,B.S.	<p>A student who has passed one of the following examinations :—</p> <p>(i) The Pre-Medical examination or the First M.B.,B.S. examination.</p> <p>(ii) The I.Sc. examination with Physics, Chemistry and Biology or some other examination recognised by the University as equivalent thereto,</p>

*Name of examination**Qualification for admission and
duration of course*

- (iii) The B.Sc. examination of a recognised University with Botany and Zoology in addition to having passed in Physics and Chemistry either at the Intermediate or degree examination.

M.S. Any student who has passed the M.B.,B.S. examination not less than three academic years before the date of the Master's examination may be examined for the degree of M.S. in the following subjects :—

1. General Surgery.
2. Ophthalmology.
3. Laryngology, Rhinology and Otology.
4. Gynaecology.

M.D. Any student who has passed the M.B.,B.S. examination not less than three academic years before the date of the Doctor's examination may be examined for the degree of M.D. in the following subjects :—

1. General Medicine,
2. Pathology.
3. Psychological Medicine.
4. Obstetric Medicine.
5. Preventive Medicine.
6. Tropical Medicine.
7. Forensic Medicine.
8. Children's diseases.
9. P h a r m a c o l o g y and
Therapeutics.
10. Physiology.

<i>Name of examination</i>	<i>Qualification for admission and duration of course</i>
Diploma in International Relations and Public Administration.	Any student of the University who has passed the B.A. or B.Sc. or B.Com. examination, or any other examination recognised by the University as equivalent thereto may be admitted to this examination. The courses extend over one academic year.
Certificate in Music (Vocal or Instrumental).	Any student can be admitted to the Certificate in Music Class. The courses extend over three academic years.

Courses of Study

Arts

Intermediate Examination.—The course of study extends over two years subsequent to the admission to the University, and a candidate is required to study and to be examined in the following subjects:—

- (1) English (3 papers)
- (2) Composition in Vernacular Language (one paper)
- (3), (4) and (5) Three of the following subjects of which two at least must be taken from Group A:—

Group A.—(1) A selected Language, (2) History, (3) Logic, (4) Psychology, (5) Mathematics, (6) Elementary Economics (7) Domestic Science (for women candidates only) (8) Geography (9) Education and (10) Music, (11) Elementary Civics and Public Administration.

Group B.—(1) Physics, (2) Chemistry, (3) Elementary Physics and Chemistry, (4) Physiology, (5) Botany, (6) Zoology, (7) Geology and (8) Biology.

The minimum for a pass is 30 per cent in English and 36 per cent in the Vernacular, and 30 per cent in the remaining subjects and 33 per cent in the aggregate. A candidate who obtains not less than 60 per cent is placed in the First Division, and in the Second Division if he obtains not less than 45 per cent.

Bachelor of Arts (B.A.) (Pass and Honours).—The course extends over two years subsequent to the Intermediate examination. A candidate for the Degree is required to study and to be examined in (1) English (3 papers) (2) Composition in a Vernacular (1 paper), (3) Two subjects (3 papers each) to be selected from the following, one at least being taken from Group A.

Group A.—(1) A Language, (2) History, (3) Economics, (4) Political Science, (5) Mental or Moral Philosophy (6) Experimental Psychology, (7) Mathematics, (8) Geography, (9) Sociology (10) Arts (11) Linguistics, (12) Domestic Science (for women candidates only), (13) Ancient Indian History and Culture.

Group B.—(1) Physiology (2) Botany (3) Zoology, (4) Physics, and (5) Chemistry.

A candidate for Honours is required to offer three more papers in one of the subjects other than Vernacular Composition.

The minimum for a pass is $33\frac{1}{2}$ per cent in each subject and 35 per cent in the aggregate ; 50 per cent in the aggregate entitles to distinction in the Pass Course.

To qualify for Honours in the subject selected a candidate must obtain 45 per cent in that subject ; 60 per cent in the subject entitles a candidate to secure a First Class.

Master of Arts (M.A.).—A candidate for this Degree should have studied for two years subsequent to graduation under a University Professor or in a College recognized for the purpose. One of the following subjects may be selected for study and examination :—

- (1) English, (2) A Classical Language, (3) Vernacular, (4) Comparative Philosophy (5) Mental and Moral Philosophy, (6) (a) History, (b) Ethnology, (c) Archaeology, (7) Economics, (8) Political Science, (9) Mathematics and (10) Experimental Psychology.

There are eight papers of four hours each at the examination and the minimum for a pass is 36 per cent in the aggregate. But marks less than 25 per cent in any paper are not included in the aggregate. Candidates obtaining 60 per cent of the total are placed in the First Class, and in the Second Class if they obtain 48 per cent.

Doctor of Philosophy (Ph.D.).—A Master of Arts who has obtained a First or a Second Class may apply for the Degree after three years from the time of his taking Master's Degree. He is required to submit a thesis embodying the result of his research and is further required to submit himself to a written examination at which two papers of three hours each are set, one upon the subject of his thesis and the other upon the subject of the candidate's study; and also to an oral or practical test with reference to his thesis.

Science

Intermediate Examination.—The course extends over two years subsequent to the Matriculation examination. A candidate is required to study and to be examined in the following subjects:—

- (1) English (3 papers), (2) Composition in a Vernacular (1 paper), (3) Chemistry, (2 papers and a Practical examination), (4) Mathematics or Physics, (5) One of the following two papers in each and a practical examination except in Mathematics: (i) Botany, (ii) Geology and Mineralogy, (iii) Zoology, (iv) Physiology, (v) General Botany, (vi) Mathematics and (vii) Physics (if not already selected). The minimum for a pass and classification of successful candidates are the same as in Arts, except that each successful candidate must pass in the practical examination, the percentage for a pass being 40.

Bachelor of Science (B.Sc.) (Pass and Honours).—The course extends over two years subsequent to the Intermediate examination. A candidate is required to study and to be examined in three of the following subjects:—

- (1) Mathematics, (2) Physics, (3) Chemistry, (4) Botany, (5) Geology, (6) Zoology and (7) Physiology and (8) Geography.

There are two papers and a practical examination in each of these subjects except Mathematics in which there are only three papers.

Honours may be obtained by taking in addition to the pass paper in two of the subjects, four theoretical papers, and two practical examinations in one of the Science subjects or six papers in Mathematics. The minimum for a Pass and Honours is the same as for the B.A., Pass and Honours respectively.

except that each successful candidate must pass in the practical examination, the percentage for a pass being 35.

Master of Science (M.Sc.).—This Degree may be taken after two years of study subsequent to graduation in Science. A candidate is required to offer one of the following subjects :—

- (1) Mathematics, (2) Chemistry, (3) Physics, (4) Botany;
(5) Physiology, (6) Geology, and (7) Zoology.

Eight papers of four hours each are set in Mathematics, and four papers of four hours each in each of the other subjects with a practical examination.

The minimum for a pass is the same as for the M.A. examination.

Doctor of Science (D.Sc.).—The rules and regulations are the same as for the Doctor in Philosophy.

1. *Intermediate in Commerce.*—The course of study extends over two years subsequent to the admission to the University, and a candidate is required to study and to be examined in the following subjects :—

Compulsory.—(1) Elementary Economics and Commercial Geography, (2) Business Method and Office Organisation, (3) Book-keeping and Commercial Arithmetic (5) Modern English including an oral examination, and (6) Composition in a Vernacular, (7) Commercial Arithmetic, (8) Commercial Correspondence and Salesmanship.

Optional.—Any two of the following :—(1) Mathematics, (2) Shorthand and Typewriting, (3) Economic History (4) Theory and Practical Banking in India (5) Insurance, (6) Civics including Administration of Local Self-Government (two papers each).

To pass the I.Com. examination in Commerce a candidate must pass the oral examination in English and obtain 30 marks in each written paper and in the aggregate 340 marks.

2. *Bachelor in Commerce.*—The course of study extends over two years subsequent to the admission to the University and a

candidate is required to study and to be examined in the following subjects :—

Compulsory.—(1) Modern English, (2) Economics, Money and Banking (3) Business Organisation and Administration and Economic Development (4) Book-keeping and Accounting and Commercial Laws.

Optional.—Any one of the following :—Economic Geography (2) Advanced Accounting and Audit and Cost Accounting (3) Actuarial Science, Insurance and Insurance Laws (4) Currency and Advanced Banking (5) Statistical Method and Applied Statistics (6) Indian Administration and Public Finance (7) Rural Economics and Cooperative Banking in India (8) Trade, Traffic and Transport (9) Industrial Development of India.

A candidate must obtain in order to pass the examination 46 marks in the two written papers and 20 marks in the oral examination in Modern English and 33 per cent of the marks in each other subject or group of subjects, and 350 marks in the aggregate. If he obtains 500 marks in the aggregate he shall be declared to have passed with Distinction.

3. *Master of Commerce.*—The Courses of Study extend over two years subsequent to the admission to the University and a candidate is required to study and to be examined in the following subjects :

Compulsory.—(1) Applied Economics, (2) Organisation of Major Industries in India (3) Business administration, (4) Public Economics, (5) Practical Training.

Optional.—(1) International Banking Problems, (2) Advanced Accounting Problems, (3) Actuarial Science, (4) Labour Organisation, Management and Welfare, (5) International Trade and Foreign Exchange, (6) Statistical Methods, (7) *Viva Voce*.

The minimum pass mark is 36 per cent in the aggregate. Candidates obtaining 60 per cent of the total are placed in the First Class and in the Second class if they obtain 48 per cent.

Professional Courses of Study and Examinations

Law

Bachelor of Law (B.L.).—The course of study is open to graduates and extends over two years.

The subjects for study are as follows :—

Law Examination, Part I.—Compulsory.—(1) The Law of Crimes and the general principles of Criminal Procedure and of the Law of Evidence relating thereto, (2) Hindu Law, including all legislative enactments relating there to, and (3) The Law of Contracts and the Law of Torts.

Optional.—(4) and (5) Any two of the following subjects :
 (a) The Constitutional Law of England and of India,
 (b) International Law and Jurisprudence, (c) Ancient Law, including the elements of Roman Law and old Indian Polity, (d) Commercial Law, comprising the Indian Income-Tax Act, the Indian Insurance Act.

Law Examination, Part II.—Compulsory.—(1) The Law relating to Property including the Law of Land Tenures, Land Revenue and Prescription, (2) The Law of Pleading and the general principles of Civil Procedure, and the Law of Evidence (3) The Law of Transfer inter vivos, the principles of Intestate and Testamentary Succession (exclusive of the Hindu and the Muhammadan Laws of Intestate Succession), and the general principles of the Law of Limitation, (4) (a) Muhammadan Law with all legislative enactments relating thereto, (b) Other Acts specified.

Optional.—Any one of the following subjects : (a) The Principles of Equity, including the Law of Trusts, the Law relating to Specific Relief, (b) Pleadings, Conveying, and Drafting including legislative drafting.

To pass the Law Examination, Part I, a candidate must obtain 33 per cent, in each paper and 50 per cent of the aggregate. Candidates obtaining $66\frac{2}{3}$ per cent are placed in the First Class.

In order to pass the Law Examination, Part II a candidate must obtain 33 per cent in each paper and 50 per cent of the aggregate. To obtain a First Class the candidate must obtain $66\frac{2}{3}$ per cent of the marks of the Law examinations, Part I and II put together.

Master of Law (M.L.).—Candidates for this must be graduates who have held the Degree of Bachelor of Law. The subjects for study are : (1) Hindu Law or Muhammadan Law, (2) Jurisprudence and Principles of Legislation, (3) Principles and History of Roman Law, (4) Private International Law, (5) and (6) any two

of the following subjects, namely (i) Principles of Equity, (ii) The Law relating to the Transfer of Immovable Property and the Law of Prescription, (iii) The Law relating to Wills, (iv) The Law of Contracts and Torts, (v) Principles and History of the Law of Real and Personal Property, (vi) Principles and History of the Law of Evidence, (vii) History of English Law. Six papers, each of three hours duration shall be set to each candidate, one on each of the six subjects. There is also a *Viva Voce* Examination.

In order to pass, a candidate must obtain 50 per cent in each paper and those who obtain $66\frac{2}{3}$ per cent of the aggregate are ranked in the First Class.

Degree of Doctor of Law.—One year after passing the examination of M. L., a candidate may present a thesis containing his research. If the thesis is approved, the candidate is required to submit to a written examination consisting of two papers, upon the special subject mentioned by the candidate and the other on the subject of the thesis. There is also an oral examination. Upon the recommendations of the Academic Council the Degree is conferred.

Education

Diploma in Education Examination.—The course of study extends over one year after passing the Bachelor's Degree training in a school. The subjects and the scheme of examination are as follows :—(1) History of Educational Practice, (2) Principles of Education, (3) Methods of Teaching, (4) Hygiene of the School Child and (5) Practical Teaching.

In each Theoretical subject, there is one paper.

In order to pass, a candidate must obtain 36 per cent of the marks in each of the above subjects and 40 per cent in the practical examination. Candidates obtaining 60 per cent of the marks are declared to have attained distinction.

Master of Education Examination.—The examination is open to candidates one year after passing the Diploma in Education Examination.

Any candidate who has passed the Bachelor of Education examination under the regulation which were in force during the years from 1928 to 1934 may be admitted to the Master of Education examination as a non-collegiate student on the recommendation of the Principal of the Patna Training College.

(i) Philosophy of Education, (ii) Educational Psychology, (iii) Methods of Teaching a Special subject (iv) History of Education (v) Intensive study of a special educational problem, (vi) Educational Measurements, (vii) Practical.

In the theoretical portion of the examination there shall be six papers each of four hours' duration carrying 100 marks, namely, one paper in each of the subjects (i) to (vi) mentioned above.

In order to pass the Master of Education examination a candidate must obtain 216 marks in the aggregate of the six theoretical papers and 80 marks in the practical examination. If in any theoretical paper a candidate obtains less than 25 marks, those marks shall not be included in his aggregate. Candidates who obtain 400 marks shall be placed in the Second Class and candidates who obtain 480 marks shall be placed in the First Class.

Civil Engineering

I.Sc. (Eng.) Examination.—The examination is open to registered under-graduates of the University, two years after passing the Intermediate examination in Science or other equivalent examination. The course of study extends over two years. In order to qualify for this examination the candidate must obtain 60 per cent of marks awarded for Field Work (Surveying) and other practical work in workshops during two sessions preceding the examination.

The subjects for study and examination are as follows :—

Group I.—Mathematics (2 papers of 3 hours each).

Group II.—Building Materials and Construction (one paper of 3 hours) ; Surveying (one paper of 3 hours), *Group III.*—Elementary Mechanical Engineering (one paper of 3 hours) ; Elementary Electrical Engineering (one paper of 3 hours) ; *Group IV.*—Graphic Statistics (one paper of 4 hours) ; Applied Mechanics (one paper of 3 hours) ; *Group V.*—Geometrical Drawing (Sessional work) ; Mechanical Drawing (Sessional work), *Group VI.*—Estimating (Sessional Work), Civil Engineering Drawing (Sessional Work), *Group VII.*—Workshop Practice, Field Survey, *Group VIII.*—Laboratory Records, Field Survey.

Each paper carries 100 marks. Minimum for a pass is 33 per cent in each group and 40 per cent in the aggregate; 60 per cent to get First Division and 50 per cent to get Second Division.

B.Sc. (Eng.) Examination.—The examination may be taken two years after passing the Intermediate examination in Civil Engineering and after a further regular course of study extending over two years.

In order to qualify for this examination a candidate must obtain 60 per cent of marks awarded for Field Work (Surveying) for his particular Engineering project and for other practical work in workshop, etc. The subjects for study and examination are as follows:—

Group I.—Strength and Elasticity of Materials (3 hours); Theory of Structures (3 hours). *Group II.*—Water Supply and Sanitary Engineering (3 hours); Irrigation and Hydraulics (3 hours); *Group III.*—Roads, Railways and Bridges (3 hours); Estimating (4 hours). *Group IV.*—Business Method (3 hours); Economics of Engineering (3 hours). *Group V.*—Structural Design (Sessional work); Laboratory Records (Sessional Work). *Group VI.*—Field Surveys (Sessional work); Civil Engineering project (Sessional work.)

There is one paper in each of the subjects under each group and carries 100 marks.

The minimum marks for a pass are 40 per cent in each group and 50 per cent in the aggregate, 840 marks in the aggregate entitle a candidate to a First Class, and 720 marks to a Second Class.

Before a successful candidate is admitted to the degree of Bachelor of Civil Engineering he has to produce evidence of a further practical training for one year to the satisfaction of the University.

Medicine

Pre-Medical Examination.—A candidate is required to study and to be examined in the following subjects: (1) Botany; (2) Zoology. In order to pass a candidate must secure 40 per cent of the maximum marks in each part of each subject.

The Intermediate M.B.,B.S. Examination.—The examination may be taken at least two years after (i) passing the Pre-Medical (or the old 1st M.B.,B.S.) examination, (ii) the I.Sc. examination of the Patna University with Physics, Chemistry and Biology or some other examination recognised by the Syndicate as equivalent thereto provided that he has passed the theoretical and practical portions of the examination in the Botany and Zoology parts of Biology separately, (iii) The B.Sc. examination of a recognised University with Botany and Zoology in addition to having passed in Physics and Chemistry either at the Intermediate or Degree examination.

A candidate is required to study and to be examined in the following subjects:—

- (1) Human Anatomy (including Embryology), Descriptive and Practical, (2) Human Physiology: (a) Descriptive and Practical, (b) Elements of Embryology, (3) Human Physiology, including (a) Principles of General Physiology, (b) Experimental Physiology, (c) History, (d) Bio-Chemistry and Bio-Physics and (e) Organic Chemistry.

In order to pass a candidate must secure at least 50 per cent of the maximum marks in each part of each subject.

Final M.B., B.S. Examination, Part I.—The examination may be taken at least two years after passing either both parts of the old Second M.B., B.S. examination or the Intermediate M.B.,B.S. examination. A candidate is required to study and to be examined in the following subjects: (1) Pathology and Bacteriology, (2) Forensic Medicine including Toxicology, (3) Hygiene and Public Health, (4) Pharmacology and Materia Medica. In order to pass, a candidate must secure at least 50 per cent of the maximum marks in each part of each subject. A candidate who passes in all subjects at one time and secures 75 per cent of the maximum marks in any subject shall be declared to have passed with Honours in that subject.

Final M.B.,B.S. Examination, Part II.—The examination may be taken at least three years after passing both parts of the old Second M.B.,B.S. examination or the Intermediate M.B.,B.S. examination. A candidate is required to study and to be examined in the following subjects:—(1) Medicine (2 papers), (2) Surgery, (3) Obstetric Gynaecology and Infant Hygiene, (4) Ophthalmology and Diseases of Ear, Nose and Throat. In

order to pass a candidate must secure 50 per cent of the maximum marks in each part of each subject of the examination. A candidate who passes in all subjects at one time and secures 75 per cent of the maximum marks in any subject shall be declared to have passed with Honours in that subject.

Master of Surgery (M.S.).—Any registered candidate who has passed the M.B.,B.S. examination not less than three academical years previously may be examined for the Degree of M.S. in the following branches:—I. General Surgery including Gynaecology II Ophthalmology. III. Laryngology, Rhinology and Otology. IV. Gynaecology.

Provided that candidates who have obtained Honours in Surgery at the M.B.,B.S. examination may be permitted to sit for the M.S. examination after two years have elapsed since they passed the Final M.B.,B.S. examination.

Provided also that a similar concession shall be made in the case of a candidate who produces evidence that he has devoted, subsequent to his graduation, at least one year in practical study or hospital work in the special subject in which he wishes to present a thesis.

“(1) The thesis presented by a candidate for the M.S. degree shall be on a subject directly connected either with General Surgery or with that special branch of Surgery in which he wishes to take the degree.”

The examination for the Degree of M.S. shall consist of:—

Branch I

(a) Two papers in Surgery (including pre-operative and post-operative treatment) one of which may be a case for commentary or an essay on one or two subjects selected from General Surgery. (b) One paper in Surgical Pathology. (c) One paper in Surgical Anatomy. (d) A clinical examination. (e) Operations on the dead body. (f) An oral examination.

Branch II

(a) One paper in General Surgery. (b) One paper in Ophthalmology (c) One paper in Anatomy and Physiology of the Eye* including elementary optics. (d) One paper in Pathology of the Eye. (e) Clinical examinations in (i) Ophthalmology and

- (ii) General Surgery. (f) Oral and practical examination in (i) Ophthalmology and (ii) General Surgery.

(The practical examination may include performance of Ophthalmic operations or such operations as have some relation to Ophthalmology.)

Branch III

(a) One paper in General Surgery. (b) One paper in Diseases of the Ear, Nose and Throat. (c) One paper in Anatomy and Physiology of the Ear, Nose and Throat, *including Elementary acoustics. (d) One paper in Pathology of the Ear, Nose and Throat. (e) Clinical examinations in (i) Diseases of the Ear, Nose and Throat and (ii) General Surgery. (f) Oral and practical examinations in (i) Diseases of the Ear, Nose and Throat and (ii) General Surgery. The practical examination may include performance of operations on the Ear, Nose and Throat or such operations as have some relation to Ear, Nose and Throat diseases.

Note.—Includes Paranasal Sinuses, Oesophagus, Trachea and Bronchi and parts of Nervous system connected with Ear, Nose and Throat.

**Note.*—Includes Adnexa of the Eye, orbit and parts of the Nervous system connected with the Eye.

Branch IV

(a) One paper in General Surgery. (b) One paper in Gynaecology. (c) One paper in Anatomy and Physiology of the Female pelvic organs. (d) One paper in Gynaecological Pathology. (e) Clinical examinations in (i) Gynaecology and (ii) General Surgery (f) Oral and Practical examinations in (i) Gynaecology and (ii) General Surgery.

(The practical examination may include performance of Gynaecological operations or such operations as have some relation to Gynaecology.)

Doctor of Medicine (M.D.).—Any registered candidate who has passed the M.B., B.S. examination not less than three

academical years previously may be examined for the Degree of M.D., in the following branches :—

- “ 1. General Medicine including mental diseases. II Obstetric Medicine and the diseases of women and children. III. Pathology. IV. Tropical Medicine.”

The following shall be substituted, namely :—

- “ I. General Medicine. II Pathology. III Psychological Medicine. IV Obstetric Medicine. V. Preventive Medicine. VI Tropical Medicine. VII. Forensic Medicine. VIII. Children's diseases. IX. Pharmacology and Therapeutics. X. Physiology; and

- “(a) he obtained Honours at the said examination in Medicine, or in Pathology and Bacteriology or in Hygiene and Public Health or in Pharmacology and Materia Medica, or in Obstetrics, Gynaecology and Infant Hygiene or in Forensic Medicine including Toxicology or in Physiology.”

Provided that candidates who have obtained Honours in Medicine at the M.B.,B.S. examination may be permitted to sit for the M.D. examination after two years have elapsed since they passed the Final M.B.,B.S. examination.

Provided also that a similar concession shall be made in the case of a candidate who produces evidence that he has devoted subsequent to this graduation, at least one year in practical study or hospital work in the special subject in which he wishes to present a thesis.

- (1) The thesis presented by a candidate for the degree of M.D. shall be on a subject directly connected with general medicine or with that special branch of medicine in which the candidate wishes to take the said degree.

The examination for the Degree of M.D. shall consist of :—

Branch I

- (a) One paper in medicine which may be a case for commentary or an essay. (b) One paper in Medical Pathology. (c) One paper in General Medicine. (d) One paper in Applied Anatomy and Physiology. (e) Clinical examination in General Medicine. (f) Oral and practical examinations including Clinical Pathology and Pathological specimens.

Branch II

(a) One paper in Pathology including Chemical Pathology. (b) One paper in Bacteriology including Parasitology. (c) One paper in General Medicine. (d) One paper in Applied Anatomy and Physiology (e) Clinical examination in General Medicine and examination in Applied Pathology. (f) Oral and practical examinations and post-mortem examination (human or laboratory animals).

Branch III

(a) One paper in Psychological Medicine (b) One paper in Pathology of the Nervous system. (c) One paper in General Medicine. (d) One paper in Applied Anatomy and Physiology. (e) Clinical examination in General Medicine and Psychological Medicine. (f) Oral and practical examinations including Clinical Pathology and Pathological specimens relating to Psychological Medicine.

Branch IV

(a) One paper in Obstetric Medicine and diseases of the infants (b) One paper in Obstetric Pathology. (c) One paper in General Medicine (d) One paper in Applied Anatomy and Physiology. (e) Clinical examination in General Medicine and Obstetric Medicine (f) Oral and Practical examinations including Clinical Pathology and Pathological specimens relating to Obstetric Medicine; the practical examination may include performance of Obstetrical operation or such operation as have some relation to Obstetrics.

Branch V

(a) One paper in Preventive Medicine, Nutrition and Vital Statistics. (b) One paper in Bacteriology, Parasitology and Chemistry relating to Public Health. (c) One paper in General Medicine (d) One paper in Applied Anatomy and Physiology. (e) Clinical examination in General Medicine and in infectious diseases. (f) Oral and practical examinations in Laboratory including field work.

Branch VI

(a) One paper in Tropical Medicine. (b) One paper in Pathology of Tropical diseases. (c) One paper in General

Medicine. (d) Clinical examination in General Medicine and Tropical Medicine. (e) One paper in Applied Anatomy and Physiology. (f) Clinical examination in General Medicine and Tropical Medicine. (g) Oral and practical examinations including clinical Pathology and Pathological specimens relating to Tropical diseases.

Branch VII

(a) One paper in Forensic Medicine. (b) One paper in Toxicology and Pathology. (c) One paper in General Medicine. (d) One paper in Applied Anatomy and Physiology. (e) Clinical examination in General Medicine and Forensic Medicine. (f) Oral and practical examinations including post-mortem examination and Pathological specimens.

Branch VIII

(a) One paper in diseases of children. (b) One paper in Pathology of the diseases of children. (c) One paper in General Medicine. (d) One paper in Applied Anatomy and Physiology. (e) Clinical examination in General Medicine and Children's diseases. (f) Oral and practical examinations including Clinical Pathology and Pathological specimens relating to the diseases of children.

Branch IX

(a) One paper in Pharmacology. (b) One paper in Therapeutics. (c) One paper in General Medicine. (d) One paper in Applied Anatomy and Physiology. (e) Clinical examination in General Medicine and examination in Therapeutics. (f) Oral and practical examinations in the laboratory.

Patna University Journal

The University publishes a journal named "The Patna University Journal." It is published three times a year.

The third number every year is a double number, one in English and one in the Indian languages.

In 1952 the Editorial Board Consisted of

Prof. V. K. N. Menon, M.A. (Oxon.)—Editor-in-Chief.
Prof. D. P. Vidyarthi, M.A., Ph.D. (Lond.), Asstt. Editor.

Branch II

- (a) One paper in Pathology including Chemical Pathology. (b) One paper in Bacteriology including Parasitology. (c) One paper in General Medicine. (d) One paper in Applied Anatomy and Physiology (e) Clinical examination in General Medicine and examination in Applied Pathology. (f) Oral and practical examinations and post-mortem examination (human or laboratory animals).

Branch III

- (a) One paper in Psychological Medicine (b) One paper in Pathology of the Nervous system. (c) One paper in General Medicine. (d) One paper in Applied Anatomy and Physiology. (e) Clinical examination in General Medicine and Psychological Medicine. (f) Oral and practical examinations including Clinical Pathology and Pathological specimens relating to Psychological Medicine.

Branch IV

- (a) One paper in Obstetric Medicine and diseases of the infants (b) One paper in Obstetric Pathology. (c) One paper in General Medicine (d) One paper in Applied Anatomy and Physiology. (e) Clinical examination in General Medicine and Obstetric Medicine (f) Oral and Practical examinations including Clinical Pathology and Pathological specimens relating to Obstetric Medicine; the practical examination may include performance of Obstetrical operation or such operation as have some relation to Obstetrics.

Branch V

- (a) One paper in Preventive Medicine, Nutrition and Vital Statistics. (b) One paper in Bacteriology, Parasitology and Chemistry relating to Public Health. (c) One paper in General Medicine (d) One paper in Applied Anatomy and Physiology. (e) Clinical examination in General Medicine and in infectious diseases. (f) Oral and practical examinations in Laboratory including field work.

Branch VI

- (a) One paper in Tropical Medicine. (b) One paper in Pathology of Tropical diseases. (c) One paper in General

Medicine. (d) Clinical examination in General Medicine and Tropical Medicine. (e) One paper in Applied Anatomy and Physiology. (f) Clinical examination in General Medicine and Tropical Medicine. (g) Oral and practical examinations including clinical Pathology and Pathological specimens relating to Tropical diseases.

Branch VII

(a) One paper in Forensic Medicine. (b) One paper in Toxicology and Pathology. (c) One paper in General Medicine. (d) One paper in Applied Anatomy and Physiology. (e) Clinical examination in General Medicine and Forensic Medicine. (f) Oral and practical examinations including post-mortem examination and Pathological specimens.

Branch VIII

(a) One paper in diseases of children. (b) One paper in Pathology of the diseases of children. (c) One paper in General Medicine. (d) One paper in Applied Anatomy and Physiology. (e) Clinical examination in General Medicine and Children's diseases. (f) Oral and practical examinations including Clinical Pathology and Pathological specimens relating to the diseases of children.

Branch IX

(a) One paper in Pharmacology. (b) One paper in Therapeutics. (c) One paper in General Medicine. (d) One paper in Applied Anatomy and Physiology. (e) Clinical examination in General Medicine and examination in Therapeutics. (f) Oral and practical examinations in the laboratory.

Patna University Journal

The University publishes a journal named "The Patna University Journal." It is published three times a year.

The third number every year is a double number, one in English and one in the Indian languages.

In 1952 the Editorial Board Consisted of

Prof. V. K. N. Menon, M.A. (Oxon.)—Editor-in-Chief.
Prof. D. P. Vidyarthi, M.A., Ph.D. (Lond.), Asstt. Editor.

Sri Gorakhnath Sinha, B.A. (Cantab.).

Dr. B. Narayana, M.Sc., M.B. (Cal.), Ph.D. (Edin.), F.R.S.
(Edin.), F.N.I.

Dr. P. B. Ganguli, M.Sc.(Alld.), D.Sc.(Lond.), F.N.I.

Student's Information Bureau

The Bureau has a small collection of reference books for the students.

The Bureau's main function is to provide general information and guidance to the students who go abroad for higher studies. The correspondence regarding the admission of the students to the various institutions abroad particularly in the U. K. and U.S. A. is carried on by the Bureau.

Budget For 1952-53

The estimated receipts and expenditure for the year 1952-53 were as under :

RECEIPTS.				EXPENDITURE.	
Government Grants	...	...	...	39,97,942	
Fees	...	...	...	19,05,438	
Endowment & Trust Funds	...	...	...	34,400	75,56,344
Other Receipts	...	...	...	7,30,530	
Total	...	...	...	66,68,310	75,56,344

There is a Provident Fund since 1918 to which only the whole-time servants of the University can contribute. The rate of subscription is $9\frac{3}{8}$ per cent per mensem on the salary of the depositor and an equal amount is contributed by the University and placed to the credit of the Provident Fund Account of the depositor.

POONA UNIVERSITY

I. Introductory : Character of the University

The University of Poona is both an affiliating and a Teaching University. Within the Poona area, under Section 40 of the Act, all teaching, training and instruction is imparted by the University. The agency used, however, is not confined to the teachers appointed directly by the University. Teachers belonging to the staff of the Constituent Degree Colleges and Recognized Institutions, recognised by the University as having the necessary qualifications for University teaching, and contributed by the Constituent Degree Colleges, are also to be utilised for the University's work of post-Intermediate and post-graduate teaching and research guidance. At present the teaching work of the University is being carried on by these teachers contributed by the Constituent Degree Colleges and Recognised Institutions, and the University Professors and Readers.

II. Constitution of the University

The Poona University Act, 1948, was enacted by an Act No. XX of 1948 of the Bombay Provincial Government as it was thought expedient to establish and incorporate a teaching and affiliating University at Poona as a measure in the decentralization and reorganisation of University education in the Province of Bombay.

The principal authorities of the University are the Court, the Executive Council, Academic Council, Faculties, Boards of Studies, the Board of University Teaching in Poona and such other bodies of the University as may be declared by the statutes to be the authorities of the University.

III. Officers and Staff of the University

<i>Chancellor</i> ...	...	His Excellency Shri Girija Shankar Bajpai, Governor of Bombay.
<i>Vice-Chancellor</i> ...	...	The Right Hon'ble Dr. M.R. Jayakar, P.C., M.A., D.C.L., LL.D.
<i>Deans of Faculties:</i> <i>In Arts</i> ...	...	Lt.-Col. R. D. Karmarkar, M.A.

<i>In Science</i> ...	Professor B. V. Bhide, M.Sc., A.I.I.Sc.
<i>In Mental, Moral and Social Sciences.</i>	Mahamopadhyaya D. V. Potdar, B.A.
<i>In Law</i> ...	Professor R. B. Phadke, M.A., LL.B.
<i>In Engineering</i> ...	Principal G. R. Vartak, B.E., A.M.I.E.
<i>In Agriculture</i> ...	Dr. J. A. Daji, B.Sc., Ph.D.
<i>In Medicine</i> ...	Dr. V. R. Khanolkar, B. Sc., M.D.
<i>Registrar</i> ...	G. P. Bhosle, B.A. (Hons.), B.Sc. (Econ.) London.
<i>Deputy Registrar</i>	D. K. Garde, M.A.
<i>Assistant Registrar</i>	R. B. Manerikar, M.A., LL.B.

Names of the affiliated Colleges and recognised research Institutions and their Principals.

<i>College or Institution</i>	<i>Principal</i>
College of Engineering, Poona-5.	T. N. Tolani, B.E., M.I.E., M.R., San. 1.
Rajaram College, Kolhapur.	D. P. Patravali, B.A. (Cantab)
Fergusson College, Poona-4.	Dr. D. D. Karve, M.Sc., Ph.D., A.I.I. Sc.
College of Agriculture, Poona-5.	L. S. S. Kumar, M.Sc., A.R.C.S., D.I.C.
Sir Parashrambhau College, Poona-2.	D. W. Kerkar, M.A. (Cantab)
Willingdon College, Sangli (S.M.C.)	K. G. Pandit, M.A.
H. P. T. College, Nasik.	B. L. Patankar, M.A.
Law College, Poona-4.	G. V. Pandit, M.A., LL.M.
N. Wadia College, Poona-1.	N. G. Suru, M.A.
Shahaji Law College, Kolhapur (S.M.C.)	S. G. Dabholkar, M.A., LL.B.
S. M. T. T. College, Kolhapur (S.M.C.)	S.M. Thigale, M.A., LL.B., B.T.
D. A. V. College, Sholapur.	S. R. Sharma, M.A., F.R. (Hist.) Soc., F.R.A.S.
Tilak College of Education, Poona-2.	B. V. Bapat, B.A., M.Sc., M.Ed.
B. M. College of Commerce, Poona-4.	T. M. Joshi, M.A.
R. P. Gogate College, Ratnagiri.	Y. D. Bhawe, M.A.

Mooljee Jaitha College of Arts and Science, Jalgaon (E.Kh.)	Y. S. Mahajan, B.Sc.(Econ.) London, Bar-at-Law.
Pratap College, Amalner (E.Kh.)	Dr. V. P. Damle M.Sc., Ph.D.
B. J. Medical College, Poona-1.	Dr. B. M. Desai, M.S., F.C.P.S.
M. E. Society's College of Arts and Science, Poona-4.	Dr. M. N. Bhat, M.A.
Ahmednagar College, Ahmednagar.	T. Barnabas, M.Sc.
Chhatrapati Shiwaji College, Satara (Camp.)	Dr. A. V. Mathew, B.A., M.Ed., Ph.D.
New Engineering College, Sangli. (S.M.C.)	G.R. Vartak, B.E., A.M.I.E.
G. K. Gokhale College, Kagal.	B. H. Khardekar, M.A., Bar-at-Law.
D. A. V. College of Commerce, Sholapur.	T. B. Narsimhachari, M.A.
Sangameshwar College, Sholapur.	K. Ishwaran, M.A.
Indian Law Society's Arts College, Poona-4.	R. V. Oturkar, M.A.

*Recognized Institutions**Directors*

Bhandarkar Oriental Research Institute, Poona-4.	Lt.-Col. R. D. Karmarkar, M.A.
Gokhale Institute of Politics & Economics, Poona-4.	D. R. Gadgil, M.A., M. Litt. (Cantab).
Deccan College Post-graduate and Research Institute, Poona-1.	Dr. S. M. Katre, M.A., Ph. D.
Maharashtra Association for Cultiva- tion of Science, Law College Buildings, Poona-4.	Dr. S.P. Agharkar, M.A., Ph.D., F.L.S., F.N.I.

IV. Number of Students in the University

The total number of students in all the affiliated Colleges is about 19,000.

In the Poona area, the number of post-Intermediate and post-graduate students receiving instruction directly under the University is as follows:—

B.A.	...	...	...	...	...	658
B.Sc.	...	...	...	...	...	694
M.A.	...	...	...	...	...	225
M.Sc.	...	...	...	...	...	54
Ph.D.	...	...	...	...	...	50
B.Sc. (Hons.)	...	...	...	...	...	48
M.Sc. (by Research)	...	...	...	...	...	30

V. Free Studentship Scholarships and Medals

Each affiliated institution has a certain number of Scholarships, Prizes and Medals and also provision for Free Studentships, the maximum being 10 per cent of the fees received. In the Poona area where post-Intermediate and post-graduate teaching is under the auspices of the University, Free Studentship and Scholarships are awarded to the students of the B.A., and B.Sc. classes up to 10 per cent of the fee income and to the post-graduate students up to 15 per cent of the fee income. Free Studentships are awarded on the basis of merit as well as need.

In addition, there are a few endowed Scholarships.

The University also awards research stipends of Rs. 100 p.m. to students engaged whole-time in research for Ph.D. degrees, if such students have high Second Class career.

VI. Scholarships for Women Students

The Mrs. Sushila Padgaonkar Scholarship at the Intermediate Science exam. for medical studies.

VII. Library, Laboratories, Gardens and Farms

Each affiliated College has, of course, its own Library and Laboratory. The College of Agriculture in Poona has its own farms and the Botanical Garden in Kirkee is utilized by the College of Agriculture. The University has its own Library which during the course of three years has built up a stock of about 35,000 books.

The University has instituted its own Departments mainly for post-graduate research in the following subjects: 1. Marathi, 2. Sanskrit, 3. Politics, 4. Experimental Psychology, 5. Chemistry, 6. Physics, 7. Mathematics and Statistics, 8. Botany, 9. Zoology, 10. Geography.

The University has its own laboratories in subjects 4 to 10 above where research can be carried on under the guidance of the Head of the University Department.

Post-graduate scientific work is being done also in the Laboratories of the Constituent Degree Colleges and Recognized Institutions.

VIII. Provision for Research

A sum of Rs. 30,000 has been set apart in the budget for post-graduate research in the Faculties of Medicine, Engineering, Agriculture and for schemes of research in Ancient Indian Culture and Maratha History. The grants to the Faculties may be utilized by them either for schemes of advanced lectures or for post-graduate research.

IX. Military Training

The University has a National Cadet Corps.

X. Residence and Cost of Living

There is hostel accommodation in each of the Constituent Colleges in Poona as well as in the affiliated colleges outside. A post-graduate hostel for about 25 students is maintained by the University. It is located in the University campus. The charges for board and lodging and other incidental expenditure come to about 75 per month.

XI. Budget

ABSTRACT OF BUDGET FOR 1953-54

<i>Income.</i>		<i>Expenditure.</i>	
	Rs. Lacs.		Rs. Lacs.
I. Govt. Grant ...	4.70	I. Administration charges ...	1.68
II. Examination Fees ...	5.12	II. Examination charges ...	4.23
III. Tuition Fees ...	9.23	III. Teaching and Research ...	20.03
IV. Other Fees & V. Extra-Mural Activities }	1.33	IV. University Library	0.59
VI. Income from Publication ...	0.03	V. University Estate	0.40
VII. University Press ...	0.74	VI. Printing Stationery & Postage ...	3.54

*Income**Expenditure*

	Rs. Lacs.		Rs. Lacs.
VIII. Employees Subscription to Provident Fund ...	0.15	VII. University Provident Fund ...	0.30
IX. Misc. Receipts ...	0.07	VIII. Travelling Allowance Election & Convocation Expenses ...	0.61
Total Income ...	21.37	IX. Other Items ...	0.45
Excess of Expenditure ...	8.22	X. University Press ...	0.76
	<hr/> 29.59		<hr/> 29.59

XII. Women Education

No special provision has been made for women's education. Admission to the affiliated colleges and to the University is open to men and to women students on the same footing. Roughly, 25 per cent of the students of the University are women students.

XIII. Students' Information Bureau and its activities

The University has an Information Bureau for the purpose of supplying information regarding Indian and Foreign Universities and specialized Institutes. It is combined with an Employment Bureau.

XIV. Provision for safeguarding Health, Medical Inspection, Discipline, etc.

The Students' Welfare Board looks after the health of the students.

Ordinarily, the Principal of the College maintains discipline in his institution. This is also the case in the Poona area as far as the post-Intermediate University students are concerned.

XV. Courses of Studies

The University provides instruction either directly or through its affiliated colleges for the following degrees. The qualifications

for entrance to the course and the duration of the course for each degree are specified against it. The entrance examinations mentioned are those of this University unless otherwise in indicated and also include similar examinations of other Universities and bodies recognized as equivalent thereto by this University :—

<i>Degree.</i>	<i>Entrance Qualification.</i>	<i>Duration</i>	<i>Remarks.</i>
B.A. ...	Secondary School certificate (Matriculation) Examination with specified subjects, conducted by the Bombay Govt.'s S.S.C.E. Board.	4 academic years with Intermediate Examination after 2 years.	...
B.Sc. (Gen.)	Do. ...	Do.	
B.Com. ...	Do. ...	Do.	
B.Sc.(Agr.) ...	Do. ...	Do.	
B.Sc. (Honours.)	(B.Sc. Gen.) ...	1 Academic year.	
B.T. ...	Any Bachelor's Degree.	1 Academic year.	
M.A. ...	B.A. ...	2 Academic years (4 terms.)	
M.Com. ...	B.Com. ...	Do.	...
M.Ed. ...	B.T. ...	1 Academic year.	
M.Sc. ...	B.Sc. (General) or B.Sc. (Honors) new course to start from June, 1953	2 Academic years after B.Sc. (Hons.)	Degree taken by Papers or Research.
M.Sc. (Agri.)	B.Sc. (Agri.) ...	2 Academic	Degree taken by Papers and or Research.
LL.B. ...	Intermediate Arts, Science or Commerce.	6 terms or 4 terms.	

Degree	Entrance Qualification	Duration	Remarks
LL.M.	LL.B. ...	6 terms	
M.B.B.S.	Intermediate Science with Biology.	10 terms	
M.D.	M.B.B.S. & employed on Hospital Staff.	3 years.	
M.S.	Do. ...	3 years.	
B.E.	Intermediate Science with Mathematics.	6 terms.	
M.E.	B.E. ...	4 terms.	
Ph.D.	Bachelor's or Master's Degree	6 terms for Bachelors. 4 terms for Masters with Papers ; 2 terms for Masters with Thesis.	
D.Litt.	Bachelor's or Master's Degree or Ph.D.	Awarded on independent published work in Arts	
D.Sc.	Do. ...	Awarded on independent published work in Science.	
Diploma in Oriental Learning		S.S.C. 2 years	
Diploma in Music		S.S.C. 2 years	

For rules and regulations, courses of study and detailed syllabus in respect of each of the above degrees a reference is requested to the University Handbook.

XVI. Average Tuition Fees

						Rs. per term
B.A.	...	...	...	...	...	100
B.Sc.	...	...	...	...	...	120
M.A.	...	...	...	...	...	100
M.Sc.	...	...	...	...	...	150
Ph.D.	...	...	...	...	...	125

UNIVERSITY OF RAJPUTANA

Introductory : Character of the University :

The idea of a new University at Jaipur—whether only for the Jaipur State, or for the whole of Rajputana or for Rajputana and Central India—can be traced to the twenties of this century. Several names—notably that of Sir Mirza Ismail among them—may since then be recalled as associated with the schemes for a University in one form or another. It was, however, the privilege of Sir V. T. Krishnamachari, the Prime Minister of Jaipur, to chiefly assist at its birth : and on the 8th of January, 1947, the year of India's Independence, the Act for a federal University for Rajputana was promulgated by the States that had decided upon this joint action. In July following, the University started functioning.

The jurisdiction of the University extends over the ring-shaped region which includes the whole of Rajputana minus the centrally-administered 'island' of Ajmer-Merwara at the centre. The area comprises the following former seven political units :—

(1) Bikaner, (2) Jaipur, (3) Jaisalmer, (4) Jodhpur, (5) Matsya-Union (consisting of the former four States of Alwar, Bharatpur, Dholpur and Karauli), (6) Rajasthan-Union (consisting of the former ten States of Banswara, Bundi, Dongarapur, Jhalawar, Kishangarh, Kotah, Pratapgarh, Shahpura, Tonk and Udaipur), and (7) Sirohi.

The University controls the High School Examination as well as the University education in this region.

The seven units were integrated into a single political unit of Rajasthan (March 30, 1949) and the University Act has been, in consequence, amended.

Officers of the University :

Visitor :

Dr. Rajendra Prasad, The President of India,

RAJPUTANA

Patron :

His Highness the Maharaj Rana Sir Bhupal Singh Ji Sahib
Bahadur of Udaipur State, Udaipur.

Chancellor :

His Highness Maharaja Sawai Man Singh, Raj Pramukh
of Rajasthan.

Vice-Chancellor :

Dr. G. S. Mahajani, M.A., Ph.D., M.L.C. (Bombay).

Registrar :

Shri M. N. Tolani, M. A.

Deans of Faculties :

1. Faculty of Arts ... Dr. P. T. Raju, M.A., Ph.D.,
University Professor of Philo-
sophy (Headquarters) Jodhpur.
2. Faculty of Science ... Dr. S. D. Arora, M.Sc., Ph.D.
(Mina.), Principal, Jaswant
College, Jodhpur.
3. Faculty of Commerce ... Shri Shankar Sahai Saxena,
M.A., M.Com., Principal,
Maharana Bhupal College,
Udaipur.
4. Faculty of Law ... Rai Bahadur K. S. Hajela, M.A.,
M.Sc., LL.M., Principal, Law
College, Jaipur.
5. Faculty of Engineering
and Technology. ... Shri V. Lakshminarayanan, B.E.,
A.M.I.E., Principal, Birla
Engineering College, Pilani.
6. Faculty of Medicine and
Pharmaceutics. ... Dr. S. K. Menon, Principal,
Sawai Man Singh Medical
College, Jaipur.

7. Faculty of Education ... Dr. K.L. Shrimali, M.A., Ph.D.,
B.T., Principal, Vidya Bhavan
Govind Ram Seksaria Teach-
ers College, Udaipur.

Constitution of the University

The authorities of the University are :—

Senate.
Academic Council (for the University side).
Board of High School Education (for the High School side).
Syndicate.

At present the following Faculties are provided :—

Arts,
Science,
Commerce,
Law,
Medicine and Pharmaceutics,
Engineering and Technology, and
Education.

Each Faculty constitutes its Boards of Studies whose reports regarding the courses of studies are considered by the Faculty and forwarded to the Academic Council with its own recommendations.

University Teaching Departments :

There are three teaching Departments in the University—Economics, Indian Philosophy and Geology. The Department of Economics located at Jaipur and that of Indian Philosophy located at Jodhpur carry on both research work for the Ph.D. degree of the University and Post-graduate teaching (M.A.). There are one whole-time Professor, a whole-time lecturer and 2 part-time lecturers in the Department of Economics. The total number of students in the Department is—Ph.D.—5, M.A. (Final)—6 and M.A. (Previous)—16. The Department of Philosophy, which commenced functioning from July 1950, besides having a full-time Professor and a Reader has also a

whole-time lecturer. In addition to the research work the Department also carries on Post-graduate teaching. The total number of students in the Department is—Ph.D.—5, M.A. (Final)—4 and M.A. (Previous)—8. The Geology Department located at Udaipur, which started its work from July 1950, has now three research scholars working for the Ph.D. degree of the University. The Post-graduate teaching (M.Sc.—Previous and Final) in Geology is carried on at the M. B. College, Udaipur.

Affiliated Institutions :

(A) The number of collegiate institutions affiliated to the University is 44 as listed below :—

1. Medical College at Jaipur. (The first batch of students appeared for the Final M.B., B.S. Examination in April 1952.)
2. Engineering Colleges—one at Pilani (Electrical and Mechanical) and the other at Jodhpur (Civil).
- 1 Teachers' Training College, Udaipur (its first batch of students appeared for the B.Ed. Examination in March-April, 1949.)
- 1 Teachers' Training College, Bikaner (as yet training students for the Certificate examination).
- 1 Agricultural College, Jobner (The first batch of students appeared for the B.Sc. (Ag.) Examination in March/April, 1951.)
- 1 College of Commerce, Nawalgarh (affiliated upto M.Com. standard.)
Besides, eight of the Arts and Science Colleges have Commerce sections which prepare students for the Inter. Com., B.Com., and the M.Com. examinations.
- 7 Colleges with courses in Arts and Science up to and including Post-graduate classes in M.A., and M.Sc. One of these colleges (Birla College of Science and Commerce, Pilani) has also Pharmaceutical courses up to the degree standard. I. Pharm. and B.Pharm. classes started with effect from July, 1950.

5 Colleges with courses in Arts and Science up to and including Degree classes in B.A., and B.Sc. One of these, specially for Women, is at Jaipur.

24 Intermediate Colleges.

Four of these, specially for Women, are at Bikaner, Kotah, Udaipur and Jodhpur.

1 College for Law at Jaipur. Besides this, 4 colleges have Law Faculties attached to them.

(B) The number of High Schools recognised by the University is 218 ; of these 16 are Girls' High Schools.

Degrees, Admission to Examinations and Courses of Study

DEGREES

The University has instituted the following degrees :—

B.A., Pass and Honours.

B.Sc., Pass and Honours.

B.Com.

B.E.

B.Sc. (Ag.)

B.Ed.

M.B.,B.S.

B.Pharm.

B.O.L.

LL.B.

M.A.

M.Sc.

M.Com.

M.Ed.

M.O.L.

LL.M.

Ph.D.

D.Litt.

D.Sc.

LL.D.

Honoris Causa.

D.Litt.

D.Sc.

LL.D.

whole-time lecturer. In addition to the research work the Department also carries on Post-graduate teaching. The total number of students in the Department is—Ph.D.—5, M.A. (Final)—4 and M.A. (Previous)—8. The Geology Department located at Udaipur, which started its work from July 1950, has now three research scholars working for the Ph.D. degree of the University. The Post-graduate teaching (M.Sc.—Previous and Final) in Geology is carried on at the M. B. College, Udaipur.

Affiliated Institutions :

(A) The number of collegiate institutions affiliated to the University is 44 as listed below :—

1. Medical College at Jaipur. (The first batch of students appeared for the Final M.B., B.S. Examination in April 1952.)
2. Engineering Colleges—one at Pilani (Electrical and Mechanical) and the other at Jodhpur (Civil).
- 1 Teachers' Training College, Udaipur (its first batch of students appeared for the B.Ed. Examination in March-April, 1949.)
- 1 Teachers' Training College, Bikaner (as yet training students for the Certificate examination).
- 1 Agricultural College, Jobner (The first batch of students appeared for the B.Sc. (Ag.) Examination in March/April, 1951.)
- 1 College of Commerce, Nawalgarh (affiliated upto M.Com. standard.)
Besides, eight of the Arts and Science Colleges have Commerce sections which prepare students for the Inter. Com., B.Com., and the M.Com. examinations.
- 7 Colleges with courses in Arts and Science up to and including Post-graduate classes in M.A., and M.Sc. One of these colleges (Birla College of Science and Commerce, Pilani) has also Pharmaceutical courses up to the degree standard. I. Pharm. and B.Pharm. classes started with effect from July, 1950.

- 5 Colleges with courses in Arts and Science up to and including Degree classes in B.A., and B.Sc. One of these, specially for Women, is at Jaipur.

24 Intermediate Colleges.

Four of these, specially for Women, are at Bikaner, Kotah, Udaipur and Jodhpur.

- 1 College for Law at Jaipur. Besides this, 4 colleges have Law Faculties attached to them.

(B) The number of High Schools recognised by the University is 218 ; of these 16 are Girls' High Schools.

Degrees, Admission to Examinations and Courses of Study

DEGREES

The University has instituted the following degrees :—

B.A., Pass and Honours.
B.Sc., Pass and Honours.
B.Com.
B.E.
B.Sc. (Ag.)
B.Ed.
M.B.,B.S.
B.Pharm.
B.O.L.
LL.B.
M.A.
M.Sc.
M.Com.
M.Ed.
M.O.L.
LL.M.
Ph.D.
D.Litt.
D.Sc.
LL.D.
Honoris Causa.
D.Litt.
D.Sc.
LL.D.

Agriculture

B.Sc. (Ag.).—Admission to the B.Sc. (Ag.) examination is granted to those who, after passing the Intermediate examination in Agriculture of the University or any other examination in Agriculture recognised by the University as equivalent thereto, have attended a regular course of study in an affiliated college for two academical years.

Commerce

B.Com.—Admission to B.Com. examination is granted to those who after passing any of the following examinations have prosecuted a regular course of study at a college affiliated to the University for the B.Com. degree :—

- (i) The Intermediate examination of the Board of High School and Intermediate Education, United Provinces, the Intermediate Examination of the Central Board of Secondary Education, Ajmer, or of an Indian University incorporated by any Law for the time being in force.
- (ii) The Commercial Diploma Examination of the Allahabad University or of the Board of High School and Intermediate Education, United Provinces.
- (iii) The Intermediate examination in Commerce of the University or the Intermediate examination in Commerce of the Board of High School and Intermediate Education, United Provinces or of the Central Board of Secondary Education, Ajmer.
- (iv) The Intermediate (Group B)—Special examination of the Delhi University with Regional and Commercial Geography as an optional subject.
- (v) The Intermediate examination of Andhra University with Economics, Commercial Geography and Accountancy as optional subjects.
- (vi) The Intermediate examination in Commerce of the Nagpur University.
- (vii) The Intermediate examination in Commerce of the Banaras Hindu University, Banaras.

(viii) The Intermediate examination in Commerce of the Bombay University.

Courses of study for the B.Com. examination extend over a period of three academical years and the degree examination is held at the end of the third year's regular course of study in an affiliated college. Provided that candidates who have passed the examinations in clauses (ii) to (vii) above, are exempted from taking the first year of B.Com. course.

M.Com.—The courses of study for the Master's degree in Commerce extend over a period of two years and there are two examinations *viz.*, the Previous examination and the Final examination and only those candidates who, after taking their B. Com. degree of the University or of an Indian University recognised for the purpose by the Syndicate, have completed a regular course of study in an affiliated college for one academical year, are admitted to the Previous examination for the degree of Master of Commerce. The candidates who, after passing the Previous M.Com. examination of the University, have completed a regular course of study for one academical year in an affiliated college, are admitted to the Final examination for the degree of Master of Commerce.

Medicine

The examination for the Degree of M.B.,B.S. consists of four examinations :

- (1) The First M.B.,B.S. Examination.
- (2) The Second M.B.,B.S. Examination.
- (3) The Final M.B.,B.S. Examination (Part I), and
- (4) The Final M.B.,B.S. Examination (Part II),

which are held twice a year ordinarily in March-April and October on such dates as the Syndicate from time to time determines. (The first batch of students took their first M.B., B.S. Examination in April, 1949).

A candidate who after passing the Intermediate examination of the University, with Physics, Chemistry (including Organic Chemistry) and Biology, or the Intermediate examination of some other Indian University incorporated by any law for the time being in force, with the same group of subjects as mentioned above, or any other examination recognised by the University as equivalent thereto, has attended a regular course of study

in an affiliated college for two academical years and has attained the age of 17 years by the 31st December of the year in which he is admitted to the college, is eligible for appearing at the First M.B.,B.S. examination.

A candidate who, after passing the First M.B.,B.S. examination of the University has attended a regular course of study in an affiliated college for one academical year, is eligible for appearing at the Second M.B.,B.S. examination.

A candidate who, after passing the First M.B., B.S. examination, has for two years attended a regular course of study prescribed for the Final M.B.,B.S. examination (Part I) and has passed Second M.B.,B.S. examination, is eligible for appearing at the Final M.B.,B.S. examination (Part I).

A candidate who, after passing the First M.B., B.S. examination, has attended for three years a regular course of study prescribed for the Final M.B.,B.S. examination (Part II) and who has passed the Second M.B.,B.S. examination and who has passed Final M.B.,B.S. examination (Part I) is eligible for appearing at the Final M.B.,B.S. examination (Part II).

Pharmaceutical Courses (I. Pharm., and B.Pharm.).—The I. Pharm. examination consists of two examinations:

- (i) Intermediate examination in Pharmacy Part I, and
- (ii) Intermediate examination in Pharmacy Part II.

A candidate who after passing the High School Examination of the University with Science or General Science or an examination recognised by the University as equivalent thereto, has attended a regular course of study in an affiliated college for one academical year, is eligible for appearing at the I.Pharm., Part I examination. Only such candidates as have passed the Part I examination are eligible for appearing at the I.Pharm., Part II examination. Provided that a candidate who has passed the Intermediate examination of the University, or an examination equivalent thereto with Chemistry, Physics and Biology or Mathematics as optional subjects may be admitted to the I.Pharm., Part II examination after prosecuting a regular course of study for not less than one year, since the date of his passing the aforesaid examination, at an institution recognised by the University for the I.Pharm. examination. Such candidates shall also be required to appear in the paper or papers prescribed for Biology for the Intermediate examination in Pharmacy Part I

if they had not taken Biology for the Intermediate examination in Science.

After the completion of the regular academic course and passing at the Intermediate examination in Pharmacy a candidate shall be granted a Pharmacist's diploma on production of a satisfactory evidence of having undergone practical training in a recognised institution—Hospital, Pharmacy or Dispensary, for not less than 750 hours covered in not less than 3 months, on certification by the Principal of the college concerned.

The examination for the degree of B.Pharm. consists of three examinations :—

1. Bachelor of Pharmacy Examination Part I.
2. Bachelor of Pharmacy Examination Part II.
3. Bachelor of Pharmacy Examination Part III.

A candidate who after passing the Intermediate examination in (i) Science (with Physics, Chemistry, Mathematics or Biology) or (ii) Pharmacy of the University or an equivalent examination thereto, has attended a regular course of study in an affiliated college for one academic year, is eligible for appearing at the B.Pharm. examination Part I.

A candidate who, after passing the B. Pharm. examination, Part I, of the University has attended a regular course of study in an affiliated college for one academic year, is eligible for appearing at the B. Pharm. Part II examination.

A candidate who, after passing the B.Pharm. examination Part II, of the University has attended a regular course of study in an affiliated college for one academic year, is eligible for appearing at the B.Pharm. Part III examination.

Provided that a candidate who has passed the M.Sc. examination in Chemistry of the University or an examination equivalent thereto may be admitted to B. Pharm. Part II examination after prosecuting a regular course of study for not less than one academic year since the date of passing the aforesaid examination at an institution recognised for the B.Pharm. Part II examination. Such candidates shall be exempted from appearing in Physical Chemistry and Advanced Organic Chemistry required for B.Pharm. Part II examination, but shall be required to appear in a paper or papers on Human Anatomy, Physiology, Hygiene and First Aid and Biology prescribed for B.Pharm.

Part I examination if he has not already been exempted from the same by virtue of his having already passed in these subjects previously.

After the completion of a regular academic course and passing the B.Pharm. Part III examination, a candidate shall be granted a Pharmacist's degree on production of a satisfactory evidence of having undergone a practical training in a recognised institution, Hospital, Pharmacy, Dispensary or a manufacturing establishment for not less than 90 days on certification by the Principal of the college concerned.

Engineering

B.E.—The courses of study for the degree of Bachelor of Engineering extend over a period of four years, *viz.*, three years at the college and one year practical training in a workshop or factory approved by the Principal of an Engineering College. Courses in Mechanical, Electrical and Civil Engineering are provided for and a candidate is required to specialise only in one branch of Study at a time.

At the end of each of the first three years, there is an examination, *viz.* :—

At the end of first year,

First examination in Engineering (F. E.).

At the end of second year,

Second examination in Engineering (S. E.).

At the end of third year,

Bachelor of Engineering (B.E.).

A candidate who, after passing the Intermediate examination with Mathematics, Physics and Chemistry of the University, or any other examination recognised by the University as equivalent thereto, has attended a regular course of study in an affiliated college for one academical year, is eligible for appearing at the F. E. examination, which shall be common for Mechanical, Electrical and Civil Branches.

A candidate, who after passing the F.E. examination of the University has attended a regular course of study in an affiliated college for one academical year, is eligible for appearing at the S. E. examination.

A candidate who after passing the S.E. examination of the University has attended a regular course of study in a particular branch in an affiliated college for one full academical year is eligible for appearing at the B.E. examination in that branch of study.

A candidate after passing the B.E. examination of the University in a prescribed branch of study shall be admitted to the degree of Bachelor of Engineering in that branch of study on producing evidence to the satisfaction of the Syndicate that he has undergone Practical Training for a period of 12 months (280 working days minimum) in a workshop or factory approved by the Principal of an Engineering College.

A candidate, who has taken the Bachelor's Degree of the University in Mechanical Engineering or Electrical Engineering, may be admitted to the Bachelor's degree in Electrical Engineering or Mechanical Engineering, provided he

- (i) attends a regular course of study for one year in an affiliated college of the University for the B.E. examination in Electrical Engineering or Mechanical Engineering as the case may be

and (ii) is successful at the B.E. examination in that branch of study.

Intermediate (Arts and Science) Courses of study for the Intermediate examination extend over a period of two academical years. Only those who have passed the High School examination of the University or an examination which has been declared as equivalent thereto are eligible to appear at the Intermediate examination after having attended a regular course of study for two academical years in an affiliated college. Candidates who pass the Cambridge School Certificate (Senior Local) examination in such five subjects as are recognised for the High School examination and the Qualifying Examination for admission to the three year degree course of the Delhi University or the Higher Secondary Examination of the Board of Higher Secondary Education, Delhi, are admitted to the Intermediate examination after having attended an affiliated college for one year. In the latter case they are required to pass a test by the Principals of colleges to which they seek admission.

A candidate may, at his option, take General English as an extra subject in which there are two papers.

The minimum for a pass in all subjects is 33 per cent. There are three divisions: the First Division consists of those who obtain 60 per cent or more of the aggregate, the Second of those who obtain 45 per cent or more and the Third of those who obtain the minimum pass marks in each subject.

Candidates may, at their option, also take Military Science as an extra subject in which there are two papers and one practical of 50 marks each. For a pass in this subject candidates must obtain 45 marks in the two papers and 17 marks in the practical.

Master of Science.—Candidates must offer one of the following subjects:—(a) Mathematics, (b) Physics, (c) Chemistry, (d) Botany, (e) Zoology and (f) Geology. At the Previous examination there are three papers and a practical examination in Physics, Botany, Zoology, Geology and Chemistry. In Mathematics the examination consists of four papers. At the Final examination four papers are set in Mathematics, three papers in Zoology, Physics and Geology and two papers and a thesis or Special Paper in Chemistry and Botany with a practical examination in each subject except Mathematics.

The minimum for a pass is 36 per cent in each subject, 60 per cent or more of the aggregate places a candidate in the First Class and 48 per cent or more in the Second Class.

Professional Examinations

Bachelor of Education.—Every candidate shall be required to show a competent knowledge of the following:—

1. Principles of Education.
2. Psychology of Education.
3. History of Education:
 - (a) Western Education
 - (b) Indian Education (Ancient and Modern).
4. Methods of Teaching: (a) General Methods, (b) Special Methods.
5. Educational Administration and School Hygiene.
6. Practical skill in Teaching.

A candidate may in addition offer a special course in the

methods of teaching in one of the following subjects :—

(a) English, (b) A Modern Indian language, (c) Geography
(d) History, (e) Social Studies (f) Mathematics, (g) Physics
and Chemistry, (h) Domestic Science, (i) General Science, (j)
Physical Education, (k) Basic Education, (l) Experimental
Education, (m) Social Education, (n) Rural Education.

The minimum for a pass is 36 per cent with a minimum of 25 per cent in each paper; 60 per cent or more of the aggregate places a candidate in the First Division and 48 per cent or more, in the Second Division.

Master of Education—The examination for the degree of M.Ed. shall consist of the following papers :—

Paper I—Philosophy of Education.

Paper II—Advanced Educational Psychology.

Paper III—Comparative Education.

Paper IV—

(a) Education in Modern India

or

(b) Educational Administration and Finance in India
with special reference to Rajasthan.

Paper V—

(a) Experimental Education

or

(b) Vocational and Educational Guidance.

The examination for the degree of Master of Education shall be partly by papers and partly by dissertation which shall be in lieu of either Paper IV or Paper V.

If in the examination partly by papers and partly by dissertation, a candidate's dissertation is adequate, but he has not reached the required standard in the written portion of the examination, the candidate shall be exempted on re-entry from the presentation of a dissertation. Similarly, if the candidate has reached the required standard in the written portion of the examination but his dissertation is not adequate, he shall be exempted on re-entry from the written portion of the examination.

Minimum pass marks in each paper shall be 30 per cent but those obtaining 60 per cent of the aggregate marks or more

examinations conducted in an institution imparting such course are maintained for each student and 30 per cent marks in each subject both theory and practical are allotted for these records.

Bachelor of Pharmacy.—For the Part I examination, candidates are required to pass in (1) Inorganic and Analytical Chemistry, (2) Organic Chemistry, (3) A foreign language out of (a) English, (b) French, (c) German, (4) Any two of the subjects (a) Anatomy, Physiology, Hygiene and First Aid, (b) Biology, (c) Mathematics and Practical Physics and (d) Perfumes and Cosmetics; for the Part II examination in (1) Physical Chemistry, (2) Advanced Organic Chemistry, (3) A foreign language out of (a) French, (b) German, (c) English and (4) One of the groups (A) (i) Dispensing and Forensic Pharmacy, (ii) General Pharmacy, (iii) Pharmacognosy (B) (i) Industrial Chemistry, (ii) Pharmaceutical Technology, (iii) Principles of Economics and Sales Promotion; for the Part III examination in each of the subjects (1) Chemistry of Natural and Synthetic Drugs and Antibiotics, (2) Pharmacognosy, (3) Microbiology, (4) Bio-Chemistry, Pharmacology and Toxicology, (5) Food and Water Analysis and (6) Principles of Accounting and Business Administration.

Minimum pass marks for the three examinations are the same as laid down for the I. Pharm. examinations.

Bachelor of Engineering.—The examination is conducted by means of written papers and practical and oral tests and includes certified sessional work done in the college, laboratories and workshops. Every candidate for the F. E. examination is required to show a competent knowledge of:—

- (1) Mathematics.
- (2) Mechanics.
- (3) Engineering Chemistry.
- (4) Engineering Physics.
- (5) Electrical Engineering.
- (6) Mechanical Engineering.
- (7) Civil Engineering.
- (8) Surveying.
- (9) Machine Drawing.
- (10) Practical Geometry.

Every candidate for the S. E. examination is required to show a competent knowledge of:—

- (1) Mathematics,

- (2) Theory of Machines.
- (3) Strength of Materials and Theory of Structures.
- (4) Principles of A. C. circuits and Elements of electronics.
- (5) Hydraulics and Hydraulic Machinery.
- (6) Heat Engines.
- (7) Electrical measurements and measuring instruments.
- (8) Workshop Technology.
- (9) Machine Drawing and Design.
- (10) Electrical Engineering.

Every candidate for the S. E. examination (Civil) is required to show a competent knowledge of:—

- (1) Mathematics.
- (2) Strength of Materials and Theory of Structures.
- (3) Hydraulics and Hydraulic Machinery.
- (4) Mechanical Engineering.
- (5) Building Construction and Town Planning.
- (6) Soil and Foundation Engineering.
- (7) Engineering Geology.
- (8) Surveying.
- (9) Civil Engineering Drawing and Design.
- (10) Electrical Engineering.

There are following branches of study for the B. E. examination:—

- A. Mechanical Engineering.
- B. Electrical Engineering.
- C. Civil Engineering.

and a candidate for the B. E. degree is required to specialise only in one branch of study at a time.

Every candidate for the B. E. examination in Mechanical Engineering shall be required to show a competent knowledge of:—

- (1) Strength of Materials and Theory of Structures.
- (2) Theory of Machines.
- (3) General and Utilisation of Electric power.
- (4) Hydraulic Machinery and Water Power Engineering.
- (5) Heat Engines.
- (6) Automobile Engineering and Refrigeration.
- (7) Industrial Organisation and Management.
- (8) Workshop Technology and Engineering Production.

Every candidate for the B. E. examination in Electrical Engineering shall be required to show a competent knowledge of:—

- (1) Strength of Materials and Theory of Structures.
- (2) Transmission and Distribution of Power.
- (3) Generation and Utilisation of Power including Traction.
- (4) Hydraulic Machinery and Water Power Engineering.
- (5) Heat Engines.
- (6) Industrial organisation and Management.
- (7) Electrical Machinery.
- (8) Electrical communication.

Every candidate for the B.E. examination in Civil Engineering shall be required to show a competent knowledge of:—

- (1) Strength of Materials and theory of structures.
- (2) Hydraulics and Water Power Engineering.
- (3) Engineering Economics and specifications.
- (4) Structural Engineering I.
- (5) Structural Engineering II.
- (6) Sanitary Engineering and Water supply.
- (7) Roads and Railways.
- (8) Irrigation.

For a pass in the F. E. examination a candidate must obtain at least 35 per cent in each paper, 60 per cent in each practical and 50 per cent (900 marks) of the Grand Total.

For a pass in the S. E. examination a candidate must obtain at least 35 per cent in each paper, 60 per cent in each practical and 50 per cent (900 marks) of the Grand Total.

For a pass in the B.E. examination a candidate must obtain at least 35 per cent in each paper, 60 per cent in each practical, and 50 per cent of the Grand Total.

For purposes of classification for the award of the B. E. degree—

- (1) a degree with Honours, if he secures 75 per cent of the aggregate total of F. E., S. E., and B. E. namely 3,900 marks out of 5,200.
- (2) a First Class degree, if he secures 66 per cent (or 3,432 marks.)

- (3) a Second Class degree, if he secures 50 per cent of the aggregate total, *i.e.*, 2,600 marks.

Intermediate Examination

Every candidate for the Intermediate examination in Arts is examined in English and any three of the following subjects :—

(1) Mathematics, (2) Drawing, (3) Economics, (4) Civics, (5) History and Allied Geography, (6) Histories of Greece and Rome and allied Geography, (7) Geography, (8) Logic, (9) A modern Indian language (Urdu, Hindi) or a Modern European Language (German or French), (10) A classical Language, *viz.*, Sanskrit, Arabic, Persian, Latin, Greek or Hebrew, (11) Physiology, Hygiene and Child Study (for girls only), (12) Music and (13) Military Science. Besides these there is also one additional optional paper on General Knowledge in English in which passing is not compulsory.

The minimum pass marks in each subject and in the aggregate are 33 per cent. 60 per cent marks are required for obtaining first division ; 45 per cent for second and 33 per cent for third division. For distinction, 75 per cent of the aggregate marks in a subject is the minimum.

Intermediate in Science

Every candidate for the Intermediate examination in Science is examined in English and any three of the following subjects :—

(1) Mathematics, (2) Chemistry, (3) Physics, (4) Biology, (5) Economics, (6) Geography, (7) Physiology, Hygiene and Child Study (for girls only), and (8) Military Training. Besides these there is also one additional optional paper on General Knowledge in English, in which passing is not compulsory.

The minimum pass marks in each subject (including practicals) and in the aggregate are 33 per cent. 60 per cent marks are required for obtaining first division ; 45 per cent for second and 33 per cent for third division. For distinction, 75 per cent of the aggregate marks in a subject is the minimum.

Intermediate in Commerce

Every candidate for admission to the Intermediate in

Commerce examination is required to take (1) English, (2) Book-keeping and Accountancy, (3) Business Methods, (4) (a) Elementary Economics, (b) Regional and Commercial Geography and one of the optional subjects (1) Steno-typing, (2) Elements of Banking, (3) Elements of Industrial Organisation, (4) Mathematics and (5) Salesmanship and Publicity. Besides these subjects there is an additional optional paper in English on General Knowledge in which passing is not compulsory.

The minimum pass marks in each subject are 33 per cent and for obtaining first, second and third divisions 60 per cent, 45 per cent and 33 per cent respectively, is required. For obtaining distinction 75 per cent of the aggregate marks in a subject is the minimum.

Intermediate Science (in Agriculture)

Every candidate for the Intermediate examination in Agriculture is required to appear at the following subjects of examinations :—

- I—Agriculture—three written papers and three practicals.
- II—Botany and Agricultural Zoology—two written papers and one practical.
- III—Chemistry and Physics—two written papers and one practical.
- IV—Mathematics and Land Surveying, Agricultural Engineering and Farm Machinery—two written papers.
- V—English—two written papers.

Besides these there is an additional optional paper in English on General Knowledge in which passing is not compulsory.

In all subjects, except English, candidates are required to secure at least 25 per cent of the marks in each paper and practical separately as well as to pass in the aggregate of the papers and practicals of each group. 12 marks have been fixed as the minimum pass marks in a paper or practical of 50 marks and 6 marks in a practical or paper of 25 marks. For English, a candidate has to pass in the aggregate of the two papers. Candidates are required to obtain a minimum aggregate of 33 per cent for a pass in each subject.

The minimum percentage of marks required for First, Second and Third divisions and for obtaining Distinction in a subject are the same as for the Intermediate examination.

General

The compulsory paper in Hindi started for all students (upto degree students) so as to make them conversant with working knowledge in Hindi has been discontinued and instead a proficiency test in Hindi has been introduced with effect from the examinations of 1953. Every candidate excepting those who have already passed the High School Examination or a higher examination with Hindi as one of the subjects or those who had passed the former additional compulsory paper in Hindi, will have to pass this test before receiving his degree.

Conditions of re-admission to University Examinations

A candidate who has satisfied all the requirements of the prescribed courses of study, including the necessary minimum attendance at an affiliated college, and is certified by the Principal as eligible for admission to an examination and after certification does not join a college is eligible to appear at an examination of the University as an ex-student.

A candidate who has attended a regular course of study in an affiliated college and who has failed once in a University examination, is also eligible to appear at an examination of the University as an ex-student.

A supplementary examination is held in August for candidates who fail in one subject only at the immediately preceding Intermediate, B.A., B.Sc., B.Sc. (Ag.), B.Com. or LL.B. examination and such candidates as desire to take the supplementary examination are provisionally permitted at their own risk to join the next higher class in an affiliated college of the University and count attendance in case they are successful at the supplementary examination. Candidates are declared to have passed the examination, if they secure required minimum pass marks in the subject in which they appear at the supplementary examination. No division is, however, awarded to such candidates. Candidates are required to pass separately in the practical examination, if any. A candidate who desires to enter for an examination under this ordinance, must submit his application direct to the Registrar in a prescribed form so as

to reach him not later than the 1st August each year. The application shall be accompanied by the usual fee prescribed for the examination concerned and the marks fee of Re. 1.

Admission of Teachers, Inspectors, Librarians, Women and External Students to the Examinations of the University

A teacher in an approved educational institution or an Inspector in the Department of Education in Rajasthan is also eligible for admission to University examinations if he has served continuously as a teacher or an Inspector for 18 months (in the case of Intermediate, B.A. or B.Com. examination) or for eight months (in the case of M.A. Previous and Final examination) and if he fulfils certain other special conditions. Provided that in the case of a teacher or an Inspector who has immediately before joining service prosecuted a regular course of study for one academical year in an affiliated college and has been promoted to the next higher class, his minimum period of 18 months' continuous service (for Intermediate, B.A. or B.Com.), as required, may be reduced to eight months by the Syndicate.

Whole-time librarians in recognised colleges who are graduates and possess Diploma in Librarianship are eligible to appear at the examination of the University except the B.Ed., B.E., LL.B., B.Sc., and M.Sc. (requiring practical work) and M.B., B.S. examinations of the University if they have immediately preceding the examination worked as librarian for 8 months and that before the commencement of such service the B.A., B.Sc. or B.Com. examination of the University.

Women candidates residing within the territorial limits of the University are allowed to appear at the examinations of the University except the B.Ed., LL.B., I.Pharm., B.Pharm., M.B., B.S. and Bachelor of Engineering examinations without attending regular course of study in an affiliated college.

External students are 'in-service students', *i.e.*, those who are gainfully employed and cannot for valid reasons join colleges as regular students, residing within the territorial jurisdiction of the University and studying in the evening classes of affiliated degree colleges are allowed to appear at the B.A. and B.Com. Examinations only. (i) These 'in-service' candidates are enrolled to attend evening classes which certain degree colleges are authorised to run (ii) the teachers of the evening classes are drawn from the staff of the colleges concerned, who volunteer

to do the work, but they are restricted to teach not more than one period a day, each (iii) the 'in-service' candidates are thus intermediate in status to 'private' candidates on the one hand and full time day scholars on the other, (iv) the candidates will receive the same 'degrees' as others but in view of the deviations from the recommendation of the University commission, in their Degree certificates an entry will be made "appeared as an external candidate"—as is done for the 'private' candidates.

Number of Students in the University

The number of students Faculty-wise (excluding Intermediate classes) in the affiliated college was as follows in the session 1951-52 :—

		Internal (Day classes.)	External (Evening classes.)
1. Arts	... ..	1405	634
2. Science	... ..	788	...
3. Commerce	... ..	626	138
4. Law	... ..	979	...
5. Engineering	... ..	567	...
6. Medicine	... ..	395	...
7. Education	... ..	116	...
Total	... ..	4876	772

Residence and Health

The students of the Colleges under the jurisdiction of the University are required to live either in a hostel or with their parents or guardians. The cost of living and the conditions of residence are different in different places, the details of which may be found in the prospectuses of the different institutions issued by the institutions concerned every year.

The Board of Inspection is responsible for the periodical inspection of the hostels attached to each College, which is required to satisfy the Syndicate that arrangements for the residence, health and recreation of students are adequate.

N. C. C. Training

There are three Battalions—one at Jaipur, another at Udaipur and the third at Jodhpur, each under a separate

commandant. A Senior Division Advisory Committee with effect from January 1, 1950 for 2 years have been formed. The University grants every year a sum of Rs. 5,000 towards the amenities of the N. C. C. Battalions.

Scholarships and Medals

The following scholarships, besides six Research Scholarships of Rs. 125 p. m. each for two years, have been instituted by the University each tenable for 24 months:

- 3 Scholarships (including one to a woman candidate who stands first among women candidates) of Rs. 16 p.m. each and two scholarships of Rs. 12 p. m. each, awarded on the results of the High School examination.
- 7 Scholarships of Rs. 25 each (2 for Arts, 2 for Science and 2 for Commerce and 1 to a woman candidate who stands first among the women candidates) awarded on the results of the Intermediate examination.
- 6 Scholarships (2 for Arts, 2 for Science and 2 for Commerce) of Rs. 40 p. m. each, awarded on the results of the Degree examinations.
5. Scholarships for Medicine tenable for one year only, of Rs. 30 p. m. each—3 as a result of the first M.B., B.S., Second M.B.,B.S. and Final M.B.,B.S. Part I Examinations of April and two as a result of second M.B.,B.S. and Final M.B.,B.S. Part I Examinations of October.
- 2 Scholarships of Rs. 30 each, tenable for one year awarded on the result of F. E., and S. E. examinations to Engineering students.
- 1 Scholarship as a result of the I.Pharm. Pt. II Examination.
- 1 Scholarship as a result of the B.Pharm. Pt. I Examination.
- 1 Scholarship as a result of the B.Pharm. Pt. II Examination.
- 1 Scholarship as a result of the B.Sc.(A.) Examination.

3 Scholarships—one of Rs. 25 and two of Rs. 40 each per month—awarded in the Law Faculty, tenable for 12 months on the results of LL.B. (Previous and Final) and LL.M. Part I Examinations. The scholarships as a result of the LL.B. Final examination is awarded provided the candidate joins for LL.M. course.

A Gold Medal, called the Chancellor's Gold Medal worth Rs. 250 is awarded annually to a student who stands first at the Post-graduate examinations.

Another Gold Medal, called the A. P. Cox Gold Medal is also awarded annually to the best athlete of the University for the year. Besides there are three other Gold Medals, called (1) Seth Sagarmal Khetan Memorial Gold Medal which is awarded annually to a candidate securing the highest number of marks in Hindi at the M.A. examination, (2) Seth Radha Krishna Khetan Gold Medal, awarded annually to a candidate securing the highest number of marks in Hindi at the B.A. examination and (3) Mahadevi Khetan Memorial Gold Medal, awarded annually to a woman candidate securing the highest number of marks in Hindi at the B.A. examination among the women candidates.

Examinations held in 1952

The number of candidates for the Intermediate, Degree and Post-graduate examinations held in March-April last was 8145. Of these, 1337 appeared at the Intermediate Arts, 1029 for the Intermediate Science, 821 for the Intermediate Commerce, 26 for the Intermediate Science in Agriculture Examination, 18 for the Intermediate Examination in Pharmacy (Part I and II), 44 for the Teachers' Training Certificate, 867 for the B.A., 299 for the B.Sc., 2 for the B.Sc. (Ag.), 333 for B.Com., 513 for the M.A., 129 for the M.Sc., 100 for M.Com., 1002 for LL.B., 552 for the Engineering (F.E., S.E., and B.E.), 81 for the B.Ed., 13 for the B.Pharm. Part I, 15 for B.Pharm. Part II, and 217 for the M.B., B.S. (1st, 2nd and Final Part I and II) examinations. The total number of students that appeared as regular students from affiliated colleges, was 5669, the remaining 1729 appearing as private or non-collegiate (including 287 women candidates).

652 candidates appeared at the Supplementary Examinations, held in August 1952, for those who had failed in one

subject only at the Intermediate, Degree (B.A., B.Sc. and B. Com.) and LL.B. Examinations held in March/April 1952. Of these 503 passed.

At the High School examination, out of the 10,806 candidates registered, 10420 appeared for the examination and 5044 passed.

916 candidates appeared at the High School Supplementary Examination held in August 1952. Of these 714 passed.

Budget and Provident Fund

The University is maintained by (a) contribution, from the United State of Rajasthan (b) its own income from examination fees, etc. The financial year 1951 (January to December 1951) commenced with an opening balance of Rs. 3,05,830. The income during the year was Rs. 10,06,921 (Rs. 5,00,207 on account of examination fees, Rs. 3,64,000 from State contribution and the remaining amount Rs. 1,42,714 from other sources) as against an expenditure of Rs. 8,39,308. The year closed with a credit balance of Rs. 4,73,443.

The University has a Provident Fund to which every servant of the University holding a permanent substantive appointment drawing a pay of Rs. 30 p. m. or over is required to subscribe at the rate of 8 per cent of his salary per month, the University contributing at the rate of 10 per cent. In the case of those drawing Rs. 500 or above the University contributes at the same rate, *viz.*, 8 per cent.

Recognition of degrees and examinations of the University by other Universities, Boards and Authorities.

Almost all the Universities have recognised the degrees and examinations of the University. The following Universities and other bodies have granted permanent recognition :—

1. Agra University.
2. Aligarh Muslim University.
3. Allahabad University.
4. Andhra University.
5. Annamalai University.
6. Banaras Hindu University. (Degrees and Examinations, other than those in the Faculties of Education, Engineering and Law.)

7. Bombay University. (Degrees and Examinations other than those in the Faculties of Agriculture, Engineering, Education, B.Com. and M.Com.)
8. Calcutta University. (Degrees and Examinations other than those in the Faculties of Law, Commerce, Education, Engineering and Agriculture.)
9. University of Delhi. (Degrees and Examinations other than those in the Faculties of Agriculture, Education and Engineering.)
10. East Punjab University.
11. Gujrat University. (Degrees and Examinations other than those in the Faculties of Agriculture, Engineering, Education, B.Com. and M.Com.)
12. Lucknow University.
13. Madras University.
14. Mysore University.
15. Nagpur University.
16. Osmania University.
17. Sagaur University.
18. Utkal University.
19. Oxford University.
20. Cambridge University.
21. University of Wales.
22. University of London.
23. Institution of Chartered Accountants in England & Wales.
24. Scottish University Entrance Board.
25. Institution of Engineers.
26. Union Public Service Commission (Government of India.)
27. U. P. Board, Allahabad.
28. Central Board of Secondary Education, Ajmer.

Steps have also been taken for getting permanent recognition from the following Universities, which have accorded provisional recognition or have not yet recognised at all :

1. University of Delhi. (Degrees and Examinations in the Faculties of Agriculture, Engineering and Education.)
2. University of Poona. (Degrees and Examinations in various Faculties have been recognised for a period of four years only.)
3. University of Bombay. (Degrees and Examinations in the Faculties of Agriculture, Engineering, Education, B.Com. and M.Com.)
4. Gujarat University. Ditto.
5. Calcutta University. (Degrees and Examinations in the Faculties of Commerce, Law, Education, Engineering and Agriculture.)
6. Banaras Hindu University. (Degrees and Examinations in the Faculties of Education, Law and Engineering).

Scale of Examination and Enrolment Fees

(a) For admission to examinations :

	Rs.
1. B.A.	30
2. M.A. (Previous)	20
3. M.A. (Final)	30
4. B.Sc.	30
5. B.Sc. (Ag.)	30
6. M.Sc. (Previous)	20
7. M.Sc. (Final)	30
8. Ph.D.	150
9. LL.B. (Previous)	20
10. LL.B. (Final)	40
11. LL.M. Pt. I	50
12. LL.M. Pt. II	50
13. LL.D.	200
14. B.Com.	30
15. M.Com. (Previous)	20
16. M.Com. (Final)	30
17. B.Ed.	50

18. M.Ed.	60
19. 1st M.B., B.S.	25
20. 2nd M.B., B.S.	15
21. Final M.B., B.S. (Part I)	40
22. Final M.B., B.S. (Part II)	50
23. F.E.	50
24. S.E.	60
25. B.E.	70
26. Intermediate (Arts and Science)	25 for a regular candidate 30 by a private candidate
27. Intermediate in Commerce	25 for a regular candidate 30 by a private candidate.
28. T.T.C.	25 for a regular student. 30 by a private candidate appearing in Theory and Practice and Rs. 20 by each private candidate appearing either in Theory or in Practice.
26. Intermediate Science (in Ag.)	25 for a regular candidate. 30 by a private candidate.
30. I.Pharm. Part I	25
31. I.Pharm. Part II	30
32. B.Pharm. Part I	40
33. B.Pharm. Part II	40
34. B.Pharm. Part III	40
35. For appearing in one subject at the B.A., B.Sc. or B. Com. Examination	15
36. Re-examination fee in each subject in M.B., B.S. (Subject to a maximum of examination fee prescribed for the examination)	15
37. Supplementary B.A., B.Sc., B.Com. examination	30

38. Supplementary Intermediate examinations	25
(b) Miscellaneous	
39. Enrolment fee ...	2
40. Fee for the re-totalling of marks ...	10
41. Fee for obtaining marks obtained at a University examination ...	1
42. Migration Certificate ...	5
43. Provisional certificate ...	2
44. Eligibility Certificate ...	2

UNIVERSITY OF RANGOON

History of the Institution

The Rangoon College founded in 1880 was affiliated to the University of Calcutta. In 1920, the University of Rangoon was established, and the Rangoon College, as the University College became one of the two Constituent Colleges the other being Judson College, founded by the American Baptist Mission. The Medical College, the Teachers' College, and the Agricultural College were later established as Constituent Colleges. There was an Intermediate College at Mandalay. Before 1939, the University Council, the supreme administrative body, and the Senate, the supreme academic body, were dominated by the European Professors. In 1939, with the passing of a University of Rangoon Amendment Act, the Council became representative of national educational interests. One great change introduced by the Amendment Act of 1939 was in the office of Chancellor; before, the British Governor of Burma was ex-officio Chancellor, but in 1939, that high office was filled by election and the late Hon'ble U Tin Tut, M.A. (Cantab.), Barrister-at-Law, and then a member of the Indian Civil Service became the first elected Chancellor.

The University was closed during the war years. At the end of the war in 1945, the University reopened, but as an experimental measure, it became unitary in organization. The Constituent Colleges were abolished, and Faculties took their places. The Intermediate College at Mandalay was raised to the status of a Degree College, and retained as an affiliated College. In place of the old unwieldy Council and Senate, a small Council and Senate were established. Another innovation was in the office of the Rector of the University; the Rector was the academic head of the University, and as the Executive Officer of both the Council and the Senate, he was the chief administrative and academic Officer. The office of Chancellor was again made *ex-officio*, and the Prime Minister became the Chancellor. The experiment was found satisfactory, and the University Amendment Act, 1951, placed the new unitary organization of the University on a permanent basis.

RANGOON

Chancellor

The Hon'ble U Nu, Prime Minister of the Union of Burma.

Pro-Chancellor

The Hon'ble U Than Aung, Minister of Education.

Vice-Chancellor

The Hon'ble Mr. Justice Bo Gyi, B.A., B.L.

Officers of the University

The Rector of the University of Rangoon.

Dr. Htin Aung, LL.B. (London), M.A., D.Litt., B.Litt., Ph.D.,
(Dublin), Barrister-at-Law.

Deans of Faculties

1. Dean of Law ... U Kyaw Myint, Barrister-at-Law.
2. Dean of Arts ... Prof. U Myo Min, M.A., B.L.
3. Dean of Science ... Prof. Tha Hla, Ph.D. (Lond.),
D.I.C., A.R.I.C., F.G.S.
4. Dean of Engineering Prof. T. Ba Hli, D.I.C., M.Sc.
(Engg.) (Lond.), A.M.I.C.E.
5. Dean of Medicine ... Dr. Ba Than, M.B., F.R.C.S.E.
6. Dean of Education ... (Vacant.)
7. Dean of Agriculture. Prof. U Hla On, Dip. A. G.,
A.I.C.T.A., (Trinidad.)

Principal of University College, Mandalay

U Ko Lay, M.Sc. (Lond.), A.I.C., D.I.C.

Registrar of the University

U Yu Kin, B.Sc.

Bursar of the University

U Thein Maung, B.Sc., B.L.

Professors of the University

1. English ... U Myo Min, M.A., B.L.
2. Burmese ... U E Maung, M.A.
3. Mathematics ... U Aung Hla, M.A. (Cantab.),
Barrister-at-Law.

4. Pali ...	...	(Vacant.)
5. History ...	...	(Vacant.)
6. Economics ...	...	U Tun Thin, M.A.
7. Geography ...	...	Dr. Thin Kyi, B.A., B.Ed., Ph.D. (Clark.)
8. Geology ...	...	Dr. Tha Hla, Ph.D. (Lond.), D.S.C., A.R.I.C., F.G.S.
9. Biology ...	...	(Vacant.)
10. Physics ...	...	Dr. Mg M ₃ Kha, M.Sc., Ph.D. (Lond.), D.I.C., A.Inst.P., F.R.Met.S.
11. Chemistry ...	...	U Po Tha, M.Sc.
12. Philosophy ...	...	Dr. Hla Bu, M.A., Ph.D. (Lond.)
13. Education ...	...	(Vacant.)
14. Law ...	...	U Kyaw Myint, Barrister-at-Law.
15. Engineering ...	...	Mr. T. Ba Hli, D.I.C., M.Sc. (Engg.) (Lond.), A.M.I.C.E.
16. Agriculture ...	...	U Hla On, Dip. Agri., A.I.C.T.A. (Trinidad.)
17. Medicine ...	...	Col. Min Sein, M.B., M.R.C.S., M.R.C.P. (Lond.)
18. Anatomy ...	...	Dr. D. R. Lewis, M.B., F.R.C.S. (E.)
19. Physiclogy ...	...	Dr. U. S., M.B., B.S., D.T.M. & H., M.R.C.S., M.R.C.P.E.
20. Surgery ...	...	Dr. Ba Than, M.B., F.R.C.S.E.
21. Obstetrics & Gynaecology.	...	Dr. Daw Yin May, T.P.C., M.B.B.S., (Cal.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), F.R.C.S., F.R.C.P. (E.)
22. Forestry ...	...	Mr. C.W.D. Kermede, M.A., Dip. (Cantab.)
23. Anthropology ...	...	Dr. Htin Aung, LL.B. (London), M.A., D.Litt., B.Litt., Ph.D. (Dublin), Barrister-at-Law.

GENERAL INFORMATION

Requirements for Admission

1. Any person may be matriculated as a member of the University who :—

- (a) is not less than 16 years of age ;
- (b) is certified by an authority approved by the Senate to be of good character and conduct ;
- (c) has attained the standard of general education hereinafter under the Regulations provided for ;

- (d) has paid the prescribed fee or fees ;
- (e) has been enrolled as a student of the University or has registered as a candidate for a University Examination 4-A or 4-B of Chapter VI of the Regulations.

2. No person educated in Burma shall be matriculated without the leave of the Senate, unless he has passed the Matriculation examination held by the University in the following subjects :—

- (i) English ;
- (ii) Burmese ;

Provided that, with the approval of the Standing Committee a person may be matriculated who has not passed in Burmese but has passed in another language ;

- (iii) Mathematics (including Arithmetic) ;
- (iv) Two optional subjects chosen from the following list :—

- (1) French, (2) German, (3) Pali, (4) Latin, (5) Additional Mathematics, (6) History, (7) Geography, (8) Physics, (9) Chemistry, (10) Botany and Zoology, (11) General Science, (12) Economics of co-operation.

3. The standard of general education referred to in Regulation 1 (c) is sufficiently evidenced by passing any of the following examinations :—

- (1) The Matriculation examination of any University of Great Britain and Ireland.
- (2) The Oxford Senior Local examination.
- (3) The Cambridge Senior Local examination.
- (4) The School Certificate Examination held by the Oxford and Cambridge Schools' Examination Board.
- (5) *Any other examination approved for the purpose by special order of the Senate.

Provided that in the cases referred to in (2), (3) and (4) the applicant has passed in English, Mathematics and two optional subjects specified in Regulation 2 (iv).

The Intermediate Course

After admission to the University, a student has to attend a

*Those who pass the American High Schools come under (5).

course of studies stretching over two academic years, and on the completion of the course he takes the Intermediate examination.

Therefore, the Intermediate Class is sub-divided into two classes, the 1st Year Intermediate and the 2nd Year Intermediate.

For the Intermediate, a student has to offer two compulsory subjects, English and Burmese, and three optional subjects chosen from one of the following groups :—

- Arts : ... Optional Burmese, Pali, a Modern European Language, History, Logic, Economics, Geography, Mathematics,
- Group B ... Mathematics, Geography, Geology, Physics, Chemistry, Biology and Anthropology, Buddhistic studies and Commerce.

A student who wishes to proceed to the B.A. degree chooses his optionals from the Arts Group. A student who wishes to proceed to the B.Com., degree has to offer Commerce, Economics, and any other "Arts" subject. A student who wishes to proceed to the B.Sc. (General) chooses his optionals from the "B" group. A student who wishes to proceed to the B.Sc., Engineering has to offer Mathematics, Physics and Chemistry; a student who wishes to proceed to the M.B., B.S. has to offer Physics, Chemistry, and Biology, and a student who wishes to proceed to the B.Sc., Agriculture has to offer Physics, Chemistry with *either* Mathematics *or* Biology.

There is a University examination at the end of the 1st year, and promotion to the 2nd year is made on the results of Part A examination. At the end of the 2nd year, the student takes the Intermediate Part B examination held by the University. The following is the schedule of marks in the examination :—

Subject		Total marks	Part A.	Total marks	Part B.	Total marks
English	... 4—2 hrs each.	300	2—2 hrs each.	150	2—2 hrs each.	150
Burmese	... 1—3 hrs	100	1—3 hrs	50	1—3 hrs	50
Mathematics	2—3 hrs each.	200	1—3 hrs	10	1—3 hrs	100

Subject		Total marks	Part A.	Total marks	Part B.	Total marks
Economics	... 2—3 hrs each.	200	1—3 hrs	100	1—3 hrs	100
Pali	... 2—3 hrs each.	200	1—3 hrs	100	1—3 hrs	100
Logic	... 2—3 hrs each.	200	1—3 hrs	100	1—3 hrs	100
History	... 2—3 hrs each.	200	1—3 hrs	100	1—3 hrs	100
Opt. Burmese.	2—3 hrs each.	200	1—3 hrs.	100	1—3 hrs	100
Anthropology	2—3 hrs each.	200	1—3 hrs +P.	67+33	1—3 hrs	67+33
Physics	... 2—3 hrs each+P.	200	1—3 hrs +P.	67+33	1—3 hrs +P.	67+33
Chemistry	... 2—3 hrs each+P.	200	1—3 hrs +P.	67+33	1—3 hrs +P.	67+33
Biology	... 2—3 hrs each+2P.	200	2—2 hrs each+2P.	67+33	2—2 hrs each+2P.	67+33
Geography	... 2—3 hrs each+P.	200	1—3 hrs +P.	67+33	1—3 hrs +P.	67+33
Geology	... 2—3 hrs each+P.	200	1—3 hrs +P.	67+33	1—3 hrs +P.	67+33
Buddhistic Studies.	2—3 hrs each.	200	1—3 hrs	100	1—3 hrs	100
French	... 2—3 hrs each.	200	1—3 hrs	100	1—3 hrs	100

There are practical examinations in all subjects of the Science Group.

To gain a pass, a student must obtain a minimum of 40 per cent of the marks in *each* of his five subjects. A student who gains

75 per cent marks in a subject is awarded a 'Distinction' in that subject. Such distinctions, however, are awarded only to very brilliant students.

General First Degrees

General First Degrees, as different from Professional First Degrees, in the University of Rangoon are B.A., B.Com. in the Faculty of Arts, and B.Sc., in the Faculty of Science. B.A., and B.Sc. degrees are of two kinds, Pass degrees and Honours degrees. There is no B.Com. degree with Honours.

For the B.Com. degree, a student has to attend a course of studies covering two academic years. A B.Com. student takes (Part A) examination conducted by the University at the end of the 1st year and his promotion to the 2nd. year B. Com. class is dependent on the results of the Part A examination. He takes the B.Com. examination conducted by the University at the end of the 2nd year.

The following is the schedule of subjects and marks in the examination for the B.Com. degree:—

Subject.		Total		Total		Total	
		marks	Part. A.	marks	Part B.	marks	
English Compo-	2—3 hrs	200	2—2 hrs	100	2—2 hrs	100	
sition.	each.		each.		each.		
Economics ...	3—3 hrs		2—2½ hrs	150	2—2½ hrs	150	
	each.		each.		each.		
Commerce A.	2—3 hrs		1—2½ hrs	150	1—2½ hrs	150	
Accountancy.	each.						
Commerce A.	2—3 hrs		1—2½ hrs	150	1—2½ hrs	150	
Commercial	each.						
Law.							
Commerce B—							
Marketing ...	1—3 hrs		1—2½ hrs	150	...	...
Commerce B.	1—3 hrs		1—2½ hrs	150	...	...
Business Fin-							
ance & Com-							
mmercial Bank-							
ing.							
Commerce A.	1—3 hrs		...	...	1—2½ hrs	150	
Auditing.							
Commerce B.	1—3 hrs		...	...	1—2½ hrs	150	
Business Man-							
agement.							

To obtain a pass, a student must obtain a minimum of 40 per cent marks in each subject of the examination. A student who obtains 75 per cent marks in a subject is awarded a distinction, but as *in all University Examinations*, only very brilliant students are given distinctions.

For the B.A. Pass and B.Sc. Pass degrees, the courses of studies extend over two academic years, and there is Part A examination for promotion to the 2nd. year conducted by the University at the end of the 1st year. The student for the B.A., Pass offers the compulsory subject of English with three subjects chosen from the following group:—

English Language and Literature ; Burmese Language and Literature ; Pali Language and Literature ; Modern European History ; Modern Far Eastern History ; Ancient Far Eastern History ; Political Science ; Philosophy ; Economics ; Anthropology ; Geography and Mathematics, with the restriction that only two "History" subjects (which include Political Science) can be taken by a student.

For the B.Sc. Pass, the student offers the compulsory subject of English Composition, and three from the following group:—

Geography ; Mathematics ; Physics ; Chemistry ; Botany ; Zoology ; Geology and Anthropology.

Of course there are practical examinations, in addition to the written examination, for Geography, Anthropology and the Science subjects. The schedule of subjects and marks is as follows:

Subject		Total marks	Part A. marks	Total marks	Part B. marks	Total marks
English Composition.	2—3 hrs each.	200	2—2 hrs each.	100	2—2 hrs each.	100
English Language.	2—3 hrs each.	300	2—2½ hrs each.	150	2—2½ hrs each.	150
Pol. Science	3—3 hrs each.	300	2—2½ hrs each.	150	2—2½ hrs each.	150
Modern History	3—3 hrs each.	300	2—2½ hrs each.	150	2—2½ hrs each.	150
Far East History.	3—3 hrs each.	300	2—2½ hrs each.	150	2—2½ hrs each.	150

Subject		Total marks	Part A.	Total marks	Part B.	Total marks
Burmese Language.	3—3 hrs each.	300	2—2½ hrs each.	150	2—2½ hrs each.	150
Pali ...	3—3 hrs each.	300	2—2½ hrs each.	150	2—2½ hrs each.	150
Abhidham- ma	3—3 hrs each.	300	2—2½ hrs each.	150	2—2½ hrs each.	150
Philosophy	3—3 hrs each.	300	2—2½ hrs each.	150	2—2½ hrs each.	150
Pure Mathe- matics.	3—3 hrs each.	300	2—2½ hrs each.	150	2—2½ hrs each.	150
Applied Mathe- matics.	3—3 hrs each.	300	2—2½ hrs each.	150	2—2½ hrs each.	150
Geography	3—3 hrs each+2P.	300	2—2½ hrs each+P.	100+50	2—2½ hrs each+P.	100+50
Geology	3—3 hrs each+2P.	300	2—2½ hrs each+P.	100+50	2—2½ hrs each+P.	100+50
Physics ...	3—3 hrs each+2P.	300	2—2½ hrs each+P.	100+50	2—2½ hrs each+P.	100+50
Chemistry	3—3 hrs each+2P.	300	2—2½ hrs each+P.	100+50	2—2½ hrs each+P.	100+50
Botany ...	3—3 hrs each+2P.	300	2—2½ hrs each+P.	100+50	2—2½ hrs each+P.	100+50
Zoology ...	3—3 hrs each+2P.	300	2—2½ hrs each+P.	100+50	2—2½ hrs each+P.	100+50
Anthro- pology	3—3 hrs each+2P.	300	2—2½ hrs each+P.	100+50	2—2½ hrs each+P.	100+50

B.A./B.Sc./B.Com. Pass
1100 marks only.

A student to be awarded the degree must obtain a minimum of 40 per cent in each of the four subjects of his examination. If he is a very brilliant student he can hope to obtain 75 per cent of marks in a subject and gain a distinction in that subject.

The course for the B.A., and B.Sc. Honours is of three years' duration. In the 1st year, a student joins the 1st year (Pass) Bachelor Class, and in addition, he attends a special course of lectures in the subject in which he takes Honours. At the end of the 1st year, he is given, in addition to the 1st year, Bachelor Test examination, a special test in the subject of his Honours. To be promoted to the 2nd year Honours Class he must pass in all the subjects of the Ordinary 1st year Bachelor Test examination, and must also pass in his Honours Probationary Test examination.

In his 2nd year Honours, he follows the specialized course in his honours subject, and also the compulsory course in English Composition. At the end of his 2nd year Honours, he takes the papers in English Composition of the Bachelor Pass Degree examination. In his 3rd year, he continues with the specialized course in his Honours subject and at the completion of the course, he takes his Honours examination, consisting of eight papers in his Honours subject. Degree with 1st Class Honours, 2nd Class Honours, Divisions I and II, or Third Class Honours, or Pass Degree is awarded on the results of the Honours examination.

Compulsory Subjects.—It will be noted from the above that in the Intermediate, English and Burmese are compulsory, and in the General First Degrees, English Composition is a compulsory subject.

Professional First Degrees

On passing the Intermediate, a student may, if he has taken the required subjects at his Intermediate examination, join either the B.Sc. Engineering Class, or B.Sc. Agriculture Class, or the Bachelor of Medicine, Bachelor of Surgery (M.B., B.S.) Class.

The Schedule of subjects and marks is as follows :—

B.Sc. Engineering Examination

(a) First Examination.

Subject.	No. of Papers	Max.	Remarks.
Pure Maths. ...	1 paper of 3 hrs.	100	Minimum aggregate for a pass 362 i.e., 50 per cent of total marks; (625) and not less than 40 per cent in each paper.
Applied Maths. ...	1 paper of 3 hrs.	100	
Geometrical Drawing.	1 paper of 4 hrs.	50	
Machine Drawing			
Electro-Technology	1 paper of 3 hrs.	100	
Heat Engines ...	1 paper of 3 hrs.	100	
Practical Examination in Heat Engines and Electro-Technology ...		75	
		625	

(b) Second Examination.

Applied Mathematics.		150	Minimum aggregate for a pass 450, i.e., 50 per cent of total marks (900) and not less than 40 per cent in each paper.
Pure Mathematics.	2 papers of 3 hrs. each.	150	
Machine and Building Drawing ...	1 paper of 6 hrs.	100	
Mechanisms ...	1 paper of 3 hrs.	100	
Heat Engines ...	1 paper of 3 hrs.	100	
Electro-Technology	1 paper of 3 hrs.	100	
Surveying ...	1 paper of 3 hrs.	100	
Strength of Materials	1 paper of 3 hrs.	100	
		900	

(c) Final Examination.

1. Strength of Materials	2 papers of 3 hrs	200	Minimum aggregate for a pass 550, <i>i.e.</i> , 50 per cent of total marks (1,100) and not less than 40 per cent in each paper and the <i>viva voce</i> .
2. Hydraulics	1 papers of 3 hrs	150	
3. Design and Drawing (Civil)	1 paper of 6 hrs	200	
or Do. (Mech. and Electric.)			
4. Theory of Structures	2 papers of 3hrs	200 each.	
or Heat Engines and Thermo-dynamics			
5. Surveying and Geology or Electro-Technology.	2 papers of 3hrs	200 each.	
6. Geology or Industrial Chemistry	(Theory) 1 paper of 3 hrs (Practical) 1 paper of 3 hrs	100	
7. <i>Viva voce</i>		50	
			1,100

B.Sc. (Agriculture) Examination—

Subject.	No. of Papers.	Max	Remarks
Agriculture ...	2 papers Theory of 3 hrs. each	200	Minimum aggregate for a pass 480 <i>i.e.</i> , 40 per cent of total marks 1,200.
	2 papers Practical of 3 hrs. each	100	
Agricultural Botany	2 papers Theory of 3 hrs. each.	200	
	2 papers Practical of 3 hrs. each.	100	
Agricultural Chemistry.	2 papers Theory of 3 hrs. each.	200	Minimum for a pass in each subject 40 per cent.
	1 Paper Practical	100	
Entomology and Sericulture	1 paper Theory of 3 hrs	100	
	1 paper Practical of 4 hrs.	50	
Plant Pathology and	1 paper Theory of 3 hrs	100	
Mycology	1 paper Practical of 4 hrs.	50	
			1,200

An oral examination will be held in each of the above subjects.)

M.B., B.S. :—(a) *2nd, 3rd, and Part I, Final M.B. and B.S. Examination.*

Subject.	No. of Papers.	Max.	Min.	Remarks
1. Organic and Physical Chemistry Theory	1 paper of 3 hrs.	100	} 100	For a pass 50 per cent must be obtained in the written and
Practical ...	1 paper of 4 hrs.	100		
2. Anatomy ...	Written Exam.	200	} 200	50 per cent in the <i>Viva Voce</i> and Practical.
	<i>Viva Voce</i> & Practical	200		
3. Physiology ...	Written Exam.	200	} 200	The <i>Viva Voce</i> and Practical to be regarded as one part.
	<i>Viva Voce</i> & Practical	200		
4. Materia Medica & Pharmacology.	Written Exam.	100	} 100	
	<i>Viva Voce</i> and Practical	100		
5. Bacteriology & Medical Zoology.	Written Exam.	100	} 100	
	<i>Viva Voce</i> and Practical.	100		
6. Forensic Medicine	Written Exam.	100	} 100	
	<i>Viva Voce</i> and Practical.	100		
7. Hygiene and Public Health	Written Exam.	100	} 100	
	<i>Viva Voce</i> and Practical.	100		
8. General and Special Pathology.	Written Exam.	100	} 100	
	<i>Viva Voce</i> and Practical.	100		

(b) *Part II Final, M.B. and B.S. Examination.*

Subject.	No. of Papers.	Max.	Min.	Remarks.
1. Medicine ...	Written Exam.	200	} 150 } 200	<i>For a Pass in the whole subject.</i>
	Oral Exam.	100		
	Clinical Exam.	100		

Subject	No. of Papers	Max.	Min.	Remarks.
<i>For a pass in the whole subject.</i>				
2. Surgery	Written Exam.	200	} 150 } 50 }	200
	Oral Exam.	100		
	Clinical Exam.	100		
3. Obstetrics and Gynaecology	Written Exam.	200	} 150 } 50 }	200
	Oral Exam.	100		
	Clinical Exam.	100		

Post-Graduate Degrees.—The course for the M.A., or M.Sc. degree is a continuation of the B.A., or B.Sc. Honours course.

The course for the M.A., or M.Sc. is of three years' duration for Pass graduates. They attend the M.A., or M.Sc. qualifying class, and after a course extending over two years, take the M.A., or M.Sc. qualifying examination, which is the same as the B.A., or B.Sc. Honours examination. If they obtain the standard of 2nd Class Honours, they are qualified to proceed to the Final M.A., or M.Sc. Class.

Candidates who have obtained the B.A., or B.Sc. degree with 2nd or 1st Class Honours are admitted to the Final year M.A. Class in the subject in which they obtained the Honours.

The course for the M.A., or M.Sc. degree is of one year's duration. But most Professors advise their students to spend two years (instead of the obligatory one) in their Final M.A., or M.Sc. Class.

The Masters' degree can be obtained either by examination or thesis, or by thesis and examination.

A graduate in Arts and Science may be admitted to the B. L. degree course. The course is of two years' duration, with a University examination at the end of each year. The following is the schedule of subjects and marks.

Bachelor of Laws (Part A) :

- (a) Criminal Law, Procedure and Evidence.
- (b) Contract Act, Torts, Sale of Goods, Carriers, Fatal Accidents, Workmen's Compensation and Trade Disputes.
- (c) Personal Law and Law relating to Family Relations including Guardianship of Minors.

(d) Constitutional Law with special reference to the Constitution of the Union, the Judicial System of the University and Local Self-Government, and

(e) Principles of Equity, Trusts and Specific Relief Act.

Bachelor of Laws (Part B) :

(a) Civil Procedure, Arbitration, Limitation and Court Fees.

(b) Property Law, Negotiable Instruments, Trade Marks and Designs.

(c) Insolvency and Succession.

(d) Partnership, Company Law and Co-operative Societies, and

(e) Legal History and Elements of International Law.

B.Ed.—A graduate in Arts or Science may be admitted to the 1st year course in Education. After completing the course he takes the University examination for the Diploma in Education. The Diploma qualifies him to teach in the State Schools. A student, after obtaining the Diploma, can proceed to the 2nd year course in Education, at the completion of which he takes the University examination for the Bachelor of Education degree.

The schedule of subjects and marks is as follows :—

<i>Diploma in Education</i>	<i>Max</i>	<i>Minimum</i>
Theory of Practice of Education	}	100
Experimental Education		
History of Education		
Outline of General Psychology		
		40 per cent in each paper.
Experimental Psychology	...	
Educational Psychology	...	
Method of Teaching	...	
There will also be Practical Examination in Teaching.		

Bachelor of Education :

Psychology of Education ...

History of Education ...

Diploma in Education

Max.

Minimum

- Theory of Practice of Education.
- The Teaching of English ...
- The Teaching of Geography or History, or Burmese or Mathematics, or Physics or Chemistry, or Domestic Science. }
- School Hygiene ...
- Principles and Practice of First Aid (Oral Examination only)
- Drawing and Blackboard Work...

100

45 per cent in each paper.

1st Year B.Sc. Forestry:

- 1. Forest Policy and Law ...
- 2. Geology * ...
- 3. Biology* ...
- 4. Mathematics* ...
- 5. Surveying ...
- 6. Forest Engineering ...
- 7. Soil Science ...

2nd Year B.Sc. Forestry:

- 1. Botany ...
- 3. Silviculture ...
- 4. Utilization ...
- 5. Mensuration & Forest Management.
- 6. Surveying & Drawing ...

Maximum 100 in each. Not less than 40 per cent in each subject.

Final B.Sc. Forestry:

- 1. Mycology & Ecology ...
- 2. Silviculture & Protection ...
- 3. Utilization ...
- 4. Forest Management ...
- 5. Wood Technology ...
- 6. Statistics ...
- 7. Preparation of Working Plan.

(*). Students who have passed any of these subjects in the Intermediate Course will not be required to appear for examination in the subject or subjects. They will, however, attend special classes in the other subjects and will be required to appear for an examination in them.

Duration of Courses for Degrees :

{ For General First Degrees of B.A. Pass, B.Com. B.Sc. (Pass)
 { 2 years Intermediate + 2 years Bachelor = 4 years.

{ For Honours First degrees of B.A., and B.Sc.
 { 2 years Intermediate + 3 years Bachelor = 5 years.

For Professional First Degrees.

B.Sc., Agriculture : 2 years Intermediate + 2 years
 Bachelor = 4 years.

B.Sc. Forestry : 2 years Intermediate + 3 years Bachelor =
 5 years.

B.Sc., Engineering: 2 years Intermediate + 4 years
 Bachelor = 6 years.

M.B., B.S. : 2 years Intermediate + 5 years Bachelor = 7 years.

Post-Graduate :

M.A., or M.Sc. 3 years for Pass B.A., and B.Sc.
 1 year for Honours B.A., and B.Sc., after
 graduation.

B.L., B.Ed. 2 years after graduation.

Terms or Semester :

The academic year is divided into two terms.

1st term—16th June to 30th September.

2nd term—1st November to 15th March.

Vacation :

- (1) University closes for the October vacation for one month at the close of the monsoon.
- (2) University suspends its activities from 25th December to 1st January (both days inclusive).
- (3) The summer vacation begins on 16th March and ends on 15th June, during which periods the staff are engaged in examination work.

University Examinations :

In Arts and Science, the examination is held twice a year—in March and a supplementary examination in June. All examinations in professional subjects are held once a year in March except in Medicine in which subject half-yearly examinations are held.

Number of Students

1. University of Rangoon	...	...	...	5360
2. University College, Mandalay (Affiliated College)	...	...	...	558
Total				5918

ROORKEE UNIVERSITY

Established in 1847 as an Engineering College, Thomason College of Engineering, Roorkee, the institution was converted into the Roorkee University, by the Roorkee University Act of 1946, U. P. Act No. IX of 1948 (as amended by Act No. XII of 1949), which received the assent of the Governor on February 7, 1948.

Character and constitution—The University was constituted with a view to provide for the teaching of all branches of Engineering at the Thomason College of Engineering at Roorkee to incorporate it into a unitary, teaching and residential University. No College is affiliated to it.

The authorities of the University are (1) The senate, and (2) the Syndicate, which is the executive.

The Officers of the University are :—

The Chancellor,
The Vice-Chancellor,
The Pro-Vice-Chancellor.

The Registrar, and such others as may be declared by the Regulations to be officers of the University.

List of Personnel

1. Dr. C.A. Hart, T.D., D.Sc. (Eng.) Vice-Chancellor
2. Sri N. C. Pal, M.A., B.L. Registrar.

Department of Civil Engineering

1. Sri S.R. Singh, B.Sc. (Engg.) Reader in Civil Engineering
Bristol, A.M.I.E. (India) (Survey and Drawing.)
2. Sri Jai Krishna, B.Sc., C.E. Officiating Reader (Civil)
(Hons.) A.M.I.E., A.M.,
A.S.C.E.
3. Dr. T. G. K. Charlu, B.Sc. Reader in Geology (with
(Hons.), M.Sc., Ph.D., Chemistry.)
D.I.C.
4. Sri L. S. Agarwal, B.E., C.E., Lecturer (Civil Engineering)
M.I.E. and Offg. Chief Instructor
Overseer School.

- | | |
|--|---|
| 5. Sri O. P. Jain, C.E.
(Roorkee). | Lecturer. |
| 6. Sri S. C. Goyal, B.Sc., C.E.
(Roorkee), AMIE. | " |
| 7. Sri P. B. Shahani, B.E.
(Civil), AMIE. | " |
| 8. Sri R. M. Advani, (B. E.
Civil), AMIE, MIHR. | " |
| 9. Sri H. D. Chitale, B. E.
(Civil), A.M.I.E., M.R.
S.A.N. (London). | " |
| 10. Dr. K. C. Asthana, B.E.
(Civil Engg.), Ph.D. | " |
| 11. Sri Bharat Singh, C.E. | " |
| 12. Sri Brij Narain, B.Sc., C.E. | " |
| 13. Sri B. K. Jain, A.M.I.E.
(India). | Offg. Senior Instructor Over-
seer School. |
| 14. Sri C. L. Gupta | Do. |
| 15. Sri L. S. Garg | Junior Instructor Overseer
School. |
| 16. Sri Reoti Nandan | Senior Instructor Draftsman. |
| 17. Sri B. P. Jain | Junior Instructor Draftsman. |

Department of Mathematics & Physics

- | | |
|--|--------------------------|
| 1. Dr. Chandrika Prasad,
M.Sc. D.Phil. | Reader in Applied Maths. |
| 2. Dr. B. K. Agarwal, M.Sc.,
Ph.D. | Lecturer in Physics. |
| 3. Sri Karamvir Mittal, M.Sc.
(Maths), M.Sc. (Physics). | Lecturer in Maths. |

Department of Mechanical Engineering

- | | |
|---|---|
| 1. Sri J. N. Moudgill, B.A.,
B.Sc. (Engg.) Tech. G.,
AMIE. (India), MISI.
A.M., A.S.R.E., M.I.M. | Reader and Acting Head of
of Department. |
| 2. Sri Jagdamba Prasad, B.Sc.
(Eng.) Dip. R. T. C.
(Glasgow), A.M.I.E. | Lecturer. |
| 3. Sri A.K. Chaudhuri, B.Sc.,
(Eng.) M.A., M.Sc., G.I.
Mech. E. JUN., A.S.M.E. | " |
| 4. Sri P. N. Kapur, Dipl. Eng.
E.T.H. | " |

5. Sri N. L. Gupta, B.Sc. Lecturer.
(Engg.), M.S., M.E.
6. Sri M. N. Saxena, B.Sc., „
B.Sc. (Metallurgy).

Department of Electrical Engineering

1. Dr. Z. U. Ahmad, B.Sc., Reader and Acting Head of
(Hons.), D.I.C., Ph.D. Department.
(Engg.), (London),
A.M.I.E.E., A. A.M.,
I.E.E., ASSOC. I. Mech.
E., M.A.S.E.E.
2. Sri S. N. Roy, M.Sc., Lecturer.
(Maths), D.I.I.Sc.
(Bangalore).
3. Sri J. L. Jethi, B.Sc. (Engg.)
A.M.I.E.
4. Sri R. Partha Sarathi B.Sc., „
D.I.I.Sc. (Bangalore).
5. Sri T. S. Madhav Rao, „
B.Sc., B.E.E.

Other Officers

- | | |
|---------------------|--|
| 1. Sri Tara Chand | University Resident Engineer |
| 2. Sri H. R. Puri | Personal Assistant to Vice-Chancellor. |
| 3. Capt. Nabh Kumar | O. C., N. C. C. |
| 4. Dr. P. N. Bose | University Medical Officer. |

Courses ; (a) 3-year Civil, Electrical and Mechanical Engineering courses for the Engineering degree of the Roorkee University.

Admission qualifications : Age-17—21 years. Intermediate with Mathematics, Physics and Chemistry of the Board of High School and Intermediate Education, Uttar Pradesh or of any other Board or University in the Indian Union recognised by Government ; Higher School Certificate of the Cambridge University with Physics, Chemistry, and Mathematics ; Pre-engineering examination of Delhi Polytechnic ; B.Sc. examination of the Delhi University with English, Mathematics and Physics or Chemistry, provided that Chemistry or Physics, as

the case may be, has been taken in the Higher Secondary examination of the Delhi Board, B.A. (Hons.), Mathematics of the Delhi University provided Science subjects were taken in the Higher Secondary Examination ; Intermediate Science certificate (with Physics, Chemistry and Mathematics) awarded by the East Punjab University in lieu of social Service ; Overseer certificate examination awarded by the Thomason College of Engineering, Roorkee or the University of Roorkee ; High School Examination with two years' engineering training in an approved engineering institute, or two years' practical engineering experience approved by the Syndicate..

(b) 2—years certificate Overseer and Draftsman courses. Admission qualifications: Age 16—21 ; High School examination or its equivalent recognised by Government. Admission to both (a) and (b) through a competitive examination.

Students on roll :—The total number of students including part-time and special courses comes to about 470 in all.

Scholarships :—The Government of India grant seven scholarships of Rs. 200 p. m. each to Engineer students coming from foreign countries.

Statement of Accounts for the year 1951-52.

Receipts. Expenditure.

Serial No.	Particulars.	Amount.	Serial No.	Head.	Sanctioned budget.	Expenditure.
1	Bank Balance on 1-4-1951.	2,80,817	1	Extension and Improvements.	2,09,500	1,28,640
2	Cash do.	4,362	2	Maintenance & repairs.	2,80,000	2,63,388
3	Grants-in-aid for 1951-52.	17,30,000	3	Tools and Plants	45,000	26,135
4	University Receipts	2,34,800	4	Pay of Officers	2,98,733	2,58,150
			5	Pay of Establishment	1,63,545	1,38,305
			6	Allowances and Honoraria	1,36,000	1,19,525
			7	Contingencies (non-recurring.)	2,52,377	2,33,552
			8	Contingencies (Recurring)	3,40,000	3,05,047
			9	National Cadet Corps	30,000	23,825
			10	Liabilities of T. C. E.	3,13,197	1,29,160
					<u>20,68,252</u>	<u>16,25,727</u>
						6,17,120
						7,204

*Bank Balance on 1-4-52 in Bank.

†With Cashier

ROORKEE

Statement of Accounts for the year 1951-52—Contd.

1006

ROORKEE

Receipts Expenditure

Serial No.	Particulars	Amount.	Serial No.	Head.	Sanctioned budget.	Expenditure.
						(—) 72
				Difference—		
				Subject to final check of totals and preparation of details rounding up of figures to the nearest rupee.		
		<u>22,49,979</u>				<u>22,49,979</u>
*Actual Deduct	...	11,00,292				
Uncashed Cheques	...	4,83,172				
		<u>6,17,120</u>				
†Cash	...	2,340				
Temporary Advances	...	4,864				
		<u>7,204</u>				

UNIVERSITY OF SAUGAR

TELE— { GRAMS : University, Sagar.
 { PHONE : SAGAR-5.

1. General Information :

The University of Saugar was founded by Dr. Sir Hari Singh Gourt, Kt., M.A., D.Litt., LL.D., D.C.L., D.Sc., Bar-at-Law, who donated a sum of Rupees Twenty lacs for the purpose and appealed both to the Central and Provincial Governments to make suitable donations. The Government of Madhya Pradesh made a donation of Rupees Ten lacs towards the Endowment Fund of the University and made a further grant of Rupees fifteen lacs towards its buildings and equipment. They are also making a grant of Rupees six lacs a year to the University towards its maintenance. The Government of Madhya Pradesh have made over to the University land, measuring 2,050 acres, free of cost, at a site selected by the University for the founding of the University town. The new site has been universally acclaimed as a unique one, beautifully picturesque, with a wide panoramic view.

This plateau situate over 2000' above the sea-level is a self-contained hill on which permanent buildings of the University are under construction. The plans and estimates of these buildings show that at least a sum of Rupees One Crore is necessary for this purpose.

The objective of the University, according to the Founder, is to make it a polytechnic institution, laying special emphasis on Science, Physics, Technology, Engineering and Agriculture, along with a study of Arts and Social Sciences.

A scientific and technological faculty has thus grown with expensive equipment and a number of laboratories to carry out the main purpose and objective of this University. The University is a teaching, residential as well as an affiliating University and has on its rolls about 7,000 students of whom over 1,000 are in residence in the Teaching Departments at Sagar.

Most of the members of the Teaching Staff live on the University premises, and thus participate in the wider life of the University.

A Course in General Knowledge is compulsory for all undergraduate students.

2. Constitution :

The following are the authorities of the University :—

- (i) the Court,
- (ii) the Executive Council,
- (iii) the Academic Council,
- (iv) the Committee of Reference,
- (v) the Faculties.

3. *Chancellor*—Pandit Ravi Shanker Shukla, B.A., LL.B., LL.D. (Honorary) Ban.
Chief Minister, Madhya Pradesh, Nagpur.

Pro-Chancellor—The Education Minister, Madhya Pradesh, Nagpur.

Vice-Chancellor—Ram Prasad Tripathi, M.A., D.Sc. (London.)

Treasurer—B. L. Saraf, B.A., LLB.

Registrar—Ishwar Chandra, M.A. (Panj.)

4. Administrative Officers and other Staff:

Deputy Registrar	Bajpai, P., M.A. (Alld.), LL.B.
Assistant Registrar	Accounts Misra, B.P., B.A.
Librarian	Pathak, B.L., M.A., M.O.L.
Chairman, Board of Physical Welfare.	Pande, A.L., M.A., B.T.
Chairman Delegacy	Bhattacharya, A.K., D.Sc., (Alld).

5. **Deans:** *Arts*—M. L. Misra, M.A., D.Sc., (Alld.)

Education—L. P. D.'Souza, M.A., T.D. (Lond.)

Law—B. L. Seth, B.Sc., LL.B., (Alld.)

Science—D. S. Srivastava, M.Sc., Ph.D., (Belfast)
F.R.M.S., F.R.E.S. F.Z.S. (Lond.) F.Z.S.I.

Proctor: R. N. Pandey, M.A. (Alld.)

Warden—R. S. Shukla 'Rasal', M.A., D.Lit., (Alld.)

Teaching Staff:

Botany—Misra, R., M.Sc., Ph.D. (Leeds), F.B.S., Reader,
Five Lecturers.

Chemistry—Bhattacharya, A. K., M.Sc., D.Sc., (Alld.),
F.N.I.Sc., Reader.

Ten Lecturers.

Jain, L. C., M.A., Ph.D., D.Sc. (London), Professor.

Commerce—Misra, J. N., M.Sc., (Lond.), Lecturer.
Three other Lecturers.

Economics—Shete, M.K., M.A., (Nag.), Lecturer.
Two other Lecturers.

English—Swaminathan, S. R., M.A., (Mad.), Reader.
Five Lecturers.

Geology—Chiplonkar, G. W., M.Sc., D.Sc., (Ban.), Reader.
Three Lecturers.

Hindi—Bajpeyi, N. D., M.A., (Ban.), Reader.
Shukla, R.S., M.A. D. Litt., (Alld.), Reader.
Four Lecturers.

History—Gupta, H. L., M.A., D.Phil., (Alld.), Lecturer.
Two other Lecturers.

Archaeology—Dikshit, M.G., M.A., Ph.D., Lecturer.

Law—Shrivastava, G. S., M.A., LL.B., Hon. Lecturer.
Sarf, B.L., B.A., LL.B., Hon. Lecturer.
Kakkar, K. P., B.A., LL.B., Hon. Lecturer.
Lokras, G. K., B.A., LL.B., Hon. Lecturer.

Marathi—Adoni, D. L., M.A., (Nag.), Lecturer.

Mathematics—Misra, M. L., M.A., D.Sc., (Alld.), Reader.
Four Lecturers.

Persian—Pathak, B. L., M.A., M.O.L., Hon. Lecturer.

Philosophy—Das, R., M.A., Ph.D., (Cal.), Reader.
Three Lecturers.

Physics—Bhawalkar, D. R., M.Sc., Ph.D., (Lond.), Reader.
Seven Lecturers.

Political Science—Singh, S.S., M.A., Ph.D., (Luck.), Lecturer.
Two other Lecturers.

Sanskrit—Apte, V. M., M.A., Ph.D., Cantab., Reader.
One Lecturer.

Urdu—Pathak, B. L., M.A., M.O.L., Hon. Lecturer.

Zoology—Srivastava, D.S., M.Sc., Ph.D., (Belf.) F.R.M.S.,
F.R.E.S., Reader.

Five Lecturers.

6. Affiliated Colleges with names of their Executive Heads :

Bilaspur, Law College, Principal—Bisen, U.S., B.A., LL.B.

Bilaspur, S. B. R. Arts College, Principal—Pande, A. L.,
M.A., B.T.

Damoh, Intermediate Arts College, Principal—G. C.
Srivastava M. Com.

Jabalpur, Mahakoshal Mahavidyalaya, Principal—Shabde,
N. G., D.Sc., (Nag.), Edin.

Jabalpur, Prantiya Shikshan Mahavidyalaya, Principal—
D'Souza, L. P., M.A., T.D. (Lond.)

Jabalpur, Hitkarini Mahavidyalaya, Principal—Paranjpe,
P.M., M.A.

Jabalpur, Hitharini Law College, Principal—Shukla, B. V.,
B.A., LL.B.

Jabalpur, Government Engineering College, Principal—
Chakravarti, S. P., M.Sc., M.Sc., Engg. (Lond.), D.I.C., etc.

Jabalpur, Veterinary College, Madhya Pradesh, Principal
—Iyengar, H.N.C., G.M.V.C.P.G., Edin.

Jabalpur, G. S. College of Commerce & Economics,
Principal,—Baldua, P. L., M.A., B.Com.

Jabalpur, D. N. Jain College, Principal—Audholia, B.S.,
M.A., B.Com.

Jabalpur, Training Institute for Women, Principal—Miss
Zillah Soule, M.A., M.Ed.

Jabalpur, St. Aloysius College, Principal—Rev. H. van
Engelen.

Jabalpur, Mahila Mahavidyalaya, Principal G. M. Rama,
M.A., B.T.

Khandwa, Diploma Institute for Men, Principal—
S. M. Yakub B.A., B.T.

Khandwa, Shree Nilkantheshwar College, Principal—Bose,
A. C., M.A., Ph.D., Dublin.

Raipur, College of Science, Principal—Mukerji, U. D., M.Sc.

Raipur, Chhattisgarh College, Principal—Kelkar, M.A.,
M.A., L.T.

Raipur, New Arts College, Principal—Misra, B.P., M.A.,
D.Litt.

Raipur, Law College, Principal—Yoganandam, J., M.A.,
LL.B.

Raipur, Law College, Maudhapara, Principal—Tiwari,
B.B., B.A., LL.B.

7. Income :

Income derived from the following sources during the year 1952-53 :—

	Rs.	a.	p.
Grant from the State Government ...	4,00,000	0	0
Grant from the Central Government	1,00,000	0	0
Grant from Scholarships	10,626	0	0
Endowments	1,37,644	10	9
Fees	4,48,459	9	6
Miscellaneous receipts	4,83,547	5	7
Total Income	15,80,277	9	10

8. Library :

Total number of Volumes 22,666 approximately
 Journals subscribed 100
 Amount spent on Books so far ... Rs. 1,65,861
 Amount spent on furniture and equipment Rs. 31,886.

9. Laboratories :

Physics, Chemistry, Botany, Zoology, Geology, and Industrial and Pharmaceutical Chemistry.

10. Museums and Botanical Gardens :

The Departments of Zoology, Botany, Geology and Archaeology have Museums. The Botanical Gardens are being maintained by the Department of Botany.

11. Observatory :

Meteorological Observatory under the Department of Physics.

12. Facilities of Special Institutions and Research :

Post-graduate research is being carried on in all the Departments under the Faculties of Science, Arts and Education.

13. University Entrance Requirements :

Students who have passed the High School Certificate Examination of Madhya Pradesh or any other equivalent examination, are eligible for admission to the 1st Year Course (Intermediate 1st Year).

Students who have passed the Intermediate Certificate Examination of the University or any other examination recognised by the University as equivalent to its Intermediate

Examination, are eligible for admission to the III Year class, i.e., 1st year of the Bachelor Degree Course.

Graduates of this University as well as of other recognised Universities are eligible for admission to the Post-graduate Degree Course.

14. Degree :

B.A., B.Sc., B.Com., LL.B., M.A., M.Sc., M. Com., B.T., M.Ed., B.E., B.E.(Hons.), B.V.Sc., Ph.D.

15. External Degrees :

Teachers in recognised schools and colleges within the territorial jurisdiction of the University and women candidates are admitted to all examinations for External Degrees.

16. Fees Per Session :

I.A., Rs. 117 ; I.Sc., B.A., B.Sc., Rs. 135 ; M.A., M.Sc. Rs. 162 ; I.Com. Rs. 126 ; B.Com. Rs. 144 ; M.Com. Rs. 171 ; LL.B. Previous Rs. 108 ; LL.B. Final Rs. 126 ; Soaps and Cosmetics Diploma Course Rs. 72.

17. Language of Instruction :

Hindi and English in Intermediate classes.

English in under-graduate and post-graduate classes.

18. Conditions of Admission of non-Members of the University :

Non-members of the University are not admitted to the classes.

19. Award of Free studentship Scholarships etc. :

Merit scholarships are awarded by the University to students who top the list of successful candidates in M.A., M.Sc., M.Com., B.A., B.Sc., B.Com., B.T. and LL.B. Examinations. Besides, a number of free studentships are awarded to deserving poor students.

20. Appointments Board :

All the appointments to Professorships, Readerships and Lectureships are made on the nomination of Committee of Selection, constituted for the purpose, as follows, viz.,

- (i) The Vice-Chancellor,
- (ii) The Head of the Teaching Department concerned,
- (iii) An expert in the subject nominated by the Academic Council,

- (iv) One person to be nominated by the Executive Council from amongst its own body,
- (v) One member appointed by the Chancellor,
- (vi) One expert to be nominated by the Vice-Chancellor if and when he thinks it necessary.

All appointments are, however, finally made by the Executive Council on the recommendations of the Committee of Selection.

Students' Residences :

There are five halls of residence for the resident scholars—four for boys and one for women.

The total number of students in residence at the University is 550, *i.e.*, 500 men and 50 women students.

Hostel Fees :

For a single-seated room Rs. 5 per month.

For a double-seated room Rs. 4 per month.

Staff Residences controlled by the University :

About 40 members of the staff stay in the residences at the University Campus.

University Naval, Military or AIR formations :

There is a Regular National Cadet Corps Battalion maintained through the State Government, by the Ministry of Defence of the Government of India.

Student Health Service :

The Board of Physical Welfare looks to the arrangements connected with the physical welfare of students. A Medical Officer of Health stays on the premises and a ten-bedded Hospital Unit is attached to the University Dispensary.

Students' Unions :

The University of Saugar Union, The Delegacy Students Union and the Hostel Students Union are functioning at the University.

Publications :

The University Calendar is published every third year. Prospectuses and Syllabuses are published every year. An

Annual Report is published every year. The University Journal is published twice a year.

The Students Unions have their magazines published twice every year.

University Press :

There is a small University Press maintained and run by the University.

The Year 1950-51 :

Substantial Benefactions :

The late Sir Hari Singh Gour, the Founder of the University, by his last Will and Testament has left four-fifth of his entire estate to the University and the amount will come to just under a Crore of rupees.

New Buildings :

The Library building has been renovated and a number of houses have been put up for members of the staff. The University Canteens and Refectories have been substantially improved.

New Departments :

A Department of Industrial and Pharmaceutical Chemistry, a Department of Visual Education and a Course in General Knowledge have been added.

Visits by Members of Staff from other Universities :

Extension Lectures under 'SIR H. S. GOUR FOUNDATION LECTURES' series were delivered by the following who visited the University :—

1. Prof. R. C. Mazumdar, M.A., Ph.D.
2. Prof. J. W. McBain, F.R.S.
3. Dr. K. S. Krishnan, F.R.S.
4. Dr. M. H. R. Taimuri, Ph.D.

Honorary Degrees :

The Degree of Doctor of Letters (D.Litt.), Honoris Causa, was conferred on the Hon'ble Shri K. M. Munshi, Minister for Food and Agriculture, Government of India.

An Honorary Degree of Doctor of Laws (LL.D.) was conferred on His Excellency Sri M. M. Pakvasa, Governor of Madhya Pradesh.

Number of Students (In the Teaching Departments) :

Full-time—

Men 909

Women 67

Total 976

There are no Part-time students.

Number of Degrees awarded :

B.A., 333 ; B.Sc., 81 ; B.Com., 44 ; LL.B., 75 ; M.A., 80 ;
M.Sc., 41 ; M.Com., 2 ; B.T., 123 ; M.A. Applied Psychology
27.

Number of Diplomas awarded :

Industrial Chemistry—4.

Oriental Learning Examinations—18.

(Ishwar Chandra),

Registrar

University of Saugar.

Abstract of the Estimated Receipts for the year 1952-53, University of Saugar, Sagar.

Heads of Account	Actuals of		Estimates of 1951-52		Estimate for 1952-53.	Remarks.
	1949-50.	1950-51.	Original	Revised		
Part 'A' Recurring Receipts						
I. General Administration.	420,340	4,46,755	1,33,567	5,64,520	5,68,266	
II. Faculties	1,08,872	1,21,574	1,48,919	1,45,027	1,57,040	
III. Library	2,482	2,771	2,844	2,778	3,006	
IV. Medical and Sanitation Department.	2,965	4,226	4,496	5,601	5,100	
V. University Hostels	26,792	26,740	24,500	30,351	36,670	
VI. University Book-Depot & Stationery Stores.	1,196	9,254	38,121	38,121	38,205	
VII. University Examinations.	1,14,675	1,54,309	1,15,400	1,97,720	1,55,500	
VIII. Physical Education Department.	2,297	4,898	3,644	17,696	22,936	
IX. Public Works Deptt.	39,014	45,049	37,000	70,005	83,100	
X. Students Account	8,467	7,205	8,680	8,360	9,070	
Total Part A	7,27,100	8,22,781	5,17,171	10,80,179	10,78,793	

Part 'B' Non-Recurring Receipts

I. Non-Recurring Grant from the State.	5,09,000	...	...	...	...
II. General Donations	2,264	65	...	1,000	...
III. Sale of Investments	47,874	20,894	...	27,560	
IV. Reserve Fund	...	...	...	5,00,000	4,00,000
Total Part B	5,59,138	20,959		5,28,560	4,00,000

Part 'C' Special Funds, Debts, Deposits and Advances

I. Special Funds	...	1,33,870	89,521	...	87,336	6,778
II. Provident Fund	...	43,461	58,125	...	87,230	1,08,331
III. Advances	...	1,47,206	1,18,671	...	1,05,000	1,05,000
IV. Deposits	...	37,829	37,959	...	38,100	42,700
Total Part C.	...	3,62,366	3,04,276		3,17,666	2,62,809
Grand Total	...	16,48,604	11,48,016	5,17,171	19,26,405	17,41,702

SAUGAR

Heads of Account	Actuals of		Estimates of 1951-52		Estimates for 1952-53.	Remarks.
	1949-50.	1950-51.	Original	Revised		
Part 'A' Recurring Expenditure						
I. General Administration	1,00,137	1,55,566	1,63,145	1,85,488	2,10,672	
II. Faculties	2,84,590	3,09,048	8,00,998	4,43,798	7,69,210	
Additional provision for Revision of scales of Readers and Lecturers as per University Education Commission Report subject to Government Grant						59,034
III. Library	13,526	15,986	34,020	28,644	32,543	
IV. Medical Sanitation	17,159	19,020	25,297	23,468	28,141	
Department.						
V. University Hostels	22,089	20,232	23,421	30,794	36,921	
VI. University Book-Depot & Stationery Stores	2,417	5,351	38,121	38,121	38,205	
VII. University Examinations.	1,03,814	1,10,568	1,19,300	1,59,700	1,38,900	
VIII. Physical Education Department	6,321	6,155	9,525	23,389	37,875	
IX. Public Works Department.	73,092	1,06,207	1,10,448	1,28,910	1,35,533	
X. Students Account	8,430	7,204	8,784	8,360	9,070	
XI. General Charges	13,335	10,625	34,600	38,421	36,079	*(includes Rs. 2,16,740 sub-ject to Govt. grant).
Total Part A	6,44,910	7,65,962	13,67,059	11,09,093	14,73,149	+Rs. 59,034.

Part 'B' Non-Recurring Expenditure

I. Public Works Department.	52,856	48,321	13,88,000	7,00,083	4,88,000	
II. Science Laboratory Fittings and Fixtures.	9,263	...	10,000			
III. Equipments & Furniture	1,71,245	21,820	11,23,250	99,950	1,28,380	
IV. Library Books ...	15,708	10,113	50,000	20,000	80,000	
V. Live Stock & Carriages	...	16,275	42,000	...	1,500	
VI. General ...	1,935	2,564	29,000	7,500	7,500	
Total Part B	2,51,007	99,093	26,42,250	8,27,533	7,05,380*	*Out of this Rs. 1,50,000 is subject to Govt. Grant.

Part 'C' Special Funds, Debts, Deposits & Advances

I. Special Funds ...	2,782	1,14,989		81,336	6,778	
II. Provident Funds	55,898	59,640		87,230	1,08,331	
III. Advances	1,29,823	1,30,419		1,05,000	1,05,000	
IV. Deposits	35,524	29,605		38,100	42,700	Plus Rs. 59,034 for revision of scales of Readers & Lecturers subject to Govt. Grant.
Total Part C	2,24,027	3,34,653		3,17,666	2,62,809	
Grand Total	11,19,944	11,99,708	40,09,309	22,54,292	*24,41,338	

*Includes

Rs. 3,56,740 subject to Govt. Grant.

THE UNIVERSITY OF TRAVANCORE

The University of Travancore was established on the 1st of November 1937.

The Colleges in Travancore (of which there were 10) were previously affiliated to the University of Madras. There was, however, a growing desire among the people of the State to have a University of their own. Two committees appointed by Government to investigate and report on the desirability and feasibility of a separate University for the State, the first in 1919 and the second in 1924, had reported favourably. But, owing to various causes, no action was taken on the recommendations of the committees. The question of educational reconstruction again engaged the serious attention of Government when His Highness the present Maharaja assumed ruling powers in November 1931. Realising that the solution of the industrial and agricultural problems of the State demanded a thorough re-orientation of education policy which could be effected only through the establishment of an independent University designed to meet the particular needs and adapted to the special circumstances of the State, the Government of His Highness the Maharaja decided on the establishment of the University of Travancore.

Aims

As stated in the Preamble of the Act, the chief aims of the Travancore University are :—

- (i) to effect a reorganisation of the system of education in the State with a view to the gradual development of technical and technological education ;
- (ii) to make greater and more systematic provision for the furtherance of original research in the various branches of Applied Science ; and
- (iii) to provide for the conservation and promotion of Kerala Art and Culture.

Character

The University of Travancore is both a teaching and an affiliating University. The Colleges maintained by Government

were transferred to the maintenance and control of the University and four private Colleges were admitted to its privileges.

Since the creation of the combined State of Travancore-Cochin the colleges situated in the former State of Cochin have been affiliated to the University of Travancore.

Constitution

His Highness the Maharaja of Travancore (now Rajpramukh Travancore-Cochin State) is the Chancellor of the University. The Vice-Chancellor is the principal executive officer of the University nominated by His Highness the Chancellor. The authorities of the University are:—

- (i) the Senate,
- (ii) the Syndicate, and
- (iii) the Faculties.

The Senate consisting of between 80 and 90 members is the legislative body of the University and has general superintendence over the affairs, concerns and properties of the University, subject to the ultimate control of Government. In addition to *ex-officio* members like the Vice-Chancellor, Pro-Vice-Chancellor, Director of Public Instruction, Deans of Faculties and Principals of Colleges, the Senate includes also representatives of registered graduates and a certain number of members nominated by the Chancellor, besides those who may become Life-members by making donations to the University or who may be nominated on the ground of their eminent services in the cause of education. The Senate is to be reconstituted every three years.

The Syndicate, consisting of 12 members, forms the executive body of the University and the administration of the affairs of the University and the management of the institutions maintained by the University are vested in the Syndicate.

A Board of Finance and Accounts has been constituted to examine the Budget estimates and to advise the Syndicate on financial matters.

To advise the Senate and the Syndicate in all matters of an academic character, there are Faculties and Boards of Studies. At present there are nine Faculties, *viz.*, those of Arts, Science, Technology, Oriental Studies and Fine Arts, Law, Education, Commerce, Ayurveda and Medicine. Boards of Studies have

been set up for English, History, Economics, Philosophy, European Languages, Islamic Studies, Mathematics, Physics, Chemistry, Botany, Zoology, Statistics, Agriculture, Sanskrit, Tamil, Malayalam, Hindi, Syriac, Music, Law, Education, Engineering, Textile Technology, Technology, Commerce, Ayurveda and Medicine.

Officers and Staff of the University

Chancellor

His Highness Sir Bala Rama Varma, G.C.S.I., G.C.I.E., D.Litt., Maharaja of Travancore.

Pro-Chancellor

Vice-Chancellor

Sir A. Ramaswami Mudaliar, D.C.L.

Pro-Vice-Chancellor

Sri P. R. Parameswara Panikkar, M.A.

Registrar

Sri P. S. Abraham, B.A., M.Ed.

Deans of Faculties

Arts	...	...	Sri T. C. Sankara Menon, M.A., Principal, Maharaja's College, Ernakulam.
Science	...	...	Dr. C. S. Venkateswaran, M.A., D.Sc., F.Inst.P., Principal, University College, Trivandrum.
Oriental Studies and Fine Arts.			Sri Malloor K. Govinda Pillai, B.A., B.L., Retired Principal, Law College and Advocate, Trivandrum.
Law	...	...	Sri K. T. Koshy, B.A., B.L., Chief Justice, High Court of Judicature, Ernakulam.

Education	...	Sri V. Sundararaj Naidu, M.A., B.L., Director of Public Instruction, Travancore-Cochin State, Trivandrum.
Technology	...	Dr. M. V. Kesava Rao, B.Sc., Ph.D., A.I.I.Sc., Principal, College of Engineering, Trivandrum.
Commerce	...	Sri A. Gopala Menon, M.A., B.Com., Principal, Guruvayoorappan College, Calicut.
Ayurveda	...	Sri M. N. Kesava Pillai, Director of Indian Medicine, Trivandrum.
Medicine	...	Dr. Jacob Taliat, M.B., B.S., F.R.C.S., Retired Surgeon-General, Travancore-Cochin State, Trivandrum.

Heads of Departments of Studies

English	...	Dr. . Sivaramasubramonia Aiyer, M.A., Ph.D.
History	...	Sri K. P. Pillai, B.A. (Hons.)
Philosophy	...	Sri V. Sundararaj Naidu, M.A., B.L.
Economics	...	Sri V. R. Pillai.
European Languages.	...	Sri T. P. Thamby, B.A.
Islamic Studies	...	Vacant.
Mathematics	...	Sri C. V. Subbarama Iyer, M.A.
Physics	...	Dr. C. S. Venkiteswaran, M.A., D.Sc., F. Inst. P.
Chemistry	...	Dr. A. Narayanan Poti, M.A., Ph.D.
Botany	...	Dr. A. Abraham, M.A., M.Sc., Ph.D.
Zoology	...	Dr. K. Bhaskara Nair, M.Sc., D.Sc.
Statistics	...	Dr. U. Sivaraman Nair, M.A., Ph.D. (Lond.)
Marine Biology & Fisheries.	...	Dr. C. C. John, M.A., D.Sc. (Lond.), D.I.C.
Research in Applied Science.	...	Ditto.
Malayalam	...	Vacant.
Sanskrit	...	Vacant.
Tamil	...	Sri C. Jesudasan, M.A.
Hindi	...	Sri K. Bhaskaran Nair, R. B. Visarad, B.O.L.

<i>Name of College</i>	<i>Name of Principal</i>
Sanatana Dharma College, Alleppey.	Sri V. Ramanathan, M.A., L.T.
Mahatma Gandhi College, Trivandrum.	Sri P. K. Krishna Pillai, M.A.
Mar Ivanios College, Trivandrum.	Dr. N. A. Thomas, B.A. (Hons.), B.T., Ph.D.
Sree Narayana College, Quilon	Sri A. Rama Iyer, M.A.
C. M. S. College, Kottayam	Sri P. C. Joseph, M.A.
Scott Christian College, Nagercoil.	G. H. Marsden, Esq., M.A.
Maharaja's College, Ernakulam	Sri T. C. Sankara Menon, M.A.
Government College, Chittoor (C. chin)	Dr. G. F. Papali, M.A., Ph.D.
N. S. S. Hindu College, Chenganacherry.	Sri G. Thomas, M.A.
N. S. S. College, Pandalam	Sri K. R. Narayana Iyer, M.Sc.
St. Thomas College, Palai	Rev. Fr. Joseph Kuriathodam, M.A.
Fatima Mata National College, Quilon.	Rev. Fr. Mathew Kuthiath, M.A.
Marthoma College, Thiruvella	Rev. Dr. M. G. Chandy, B.A., L.T., B.D., S.T.M., Ph.D.
Catholicate College, Pathanamthitta.	Very Rev. P. E. Daniel Ramban, B.A., B.D.
South Travancore Hindu College, Nagercoil.	Sri S. Sathiyageeswara Iyer, M.A., B.L.
N. S. S. College, for Women, Trivandrum.	Sry. C. Sarada Amma, M. A., L.T.
Sree Narayana College for Women, Quilon.	Sry. E. K. Santha, M.A., L.T.
Assumption College, Changanacherry.	Rev. Fr. Thomas William, T.O.C.D., M.A., L.T.
Government Training College, Trichur.	Sri T. Paul Varghese, B.A., M.Ed., L.C.P., M.R.S.T.
Medical College, Trivandrum	Dr. J. Axel Hejer.
Ayurveda College, Trivandrum.	Sri V. K. G. Menon, L.M.S., F.A.I.M.

Libraries

Each College maintains its own library. The Colleges in Trivandrum have fairly good collections of books; they also subscribe for several important journals.

The University has also organized a University Library. There are at present 44,732 volumes in stock. The University Oriental Manuscripts Library contains over 33,300 manuscripts and 3,000 printed books.

Number of Students

The number of students on the rolls of the University in the various Colleges and Departments during the year 1952-53 was 21,866, while the total for 1951-52 was 19,908. Of the 21,866 on the rolls, 17,118 were men, and 4,748 women.

A statement showing the Colleges under the University and the strength of each institution.

Serial No.	Name of institution	Strength		Total
		Men	Women	
1	University College, Trivandrum.	977	458	1,435
2	College for Women, Trivandrum.	...	1,119	1,119
3	University Intermediate College, Trivandrum.	1,207	...	1,207
4	Sanskrit College, Trivandrum	207	34	241
5	Law College, Ernakulam ...	387	20	407
6	Training College, Trivandrum.	117	75	192
7	College of Engineering, Trivandrum.	357	...	357
8	Maharaja's Technological Institute, Trichur.	250	...	250
9	Institute of Textile Technology, Trivandrum.	42	3	45
10	Government Polytechnic, Kalamassery.	229	...	229
11	Union Christian College, Alwaye.	557	167	724
12	St. Berchmans' College, Changanacherry.	1,603	154	1,757

Serial No.	Name of institution	Strength		Total
		Men	Women	
13	Sanatana Dharma College, Alleppey.	846	212	1,058
14	C. M. S. College, Kottayam...	721	284	1,005
15	Scott Christian College, Nagercoil.	678	101	779
16	Mahatma Gandhi College, Trivandrum.	1,481	11	1,492
17	Mar Ivanios College, Trivan- drum.	910	...	910
18	Sree Narayana College, Quilon	1,449	122	1,571
19	Maharaja's College, Ernakulam	902	363	1,265
20	Government College, Chittur- (Cochin.)	319	33	352
21	N. S. S. Hindu College, Changanacherry.	699	114	813
22	N. S. S. College, Pandalam ...	819	132	951
23	St. Thomas College, Palai ...	676	...	676
24	Fatima Mata National Col- lege, Quilon.	709	134	843
25	Mar Thoma College, Tiruvalla	205	45	250
26	Catholicate College, Pathan- amthitta.	230	40	270
27	South Travancore Hindu Col- lege, Nageroil.	300	18	318
28	N. S. S. College for Women, Trivandrum.	...	296	296
29	Sree Narayana College for Women, Quilon.	...	286	286
30	Assumption College, Changa- nacherry.	...	434	434
31	Government Training College, Trichur.	70	50	120
32	Medical College, Trivandrum	83	37	120
33	Ayurveda College, Trivan- drum.	88	6	94
		17,118	4,748	21,866

The Trivandrum Observatory

The Trivandrum observatory which was founded in 1836 was transferred to the control of the University in 1938. The Meteorological Section of the Observatory is very well equipped and is recognised by the Government as a first class institution. The resources and facilities available in the Observatory are accessible to the students of the University, particularly those working in the Research Department.

The School of Arts

The School of Arts, founded in 1889 is an institution under the Department of Fine Arts in the University. It provides instruction in Drawing and other Art-subjects and in some of the crafts (carving in ivory and wood, smithery, pottery, and lacquer work). The manufacturing section of the School supplies various articles to Government Departments and Private agencies.

Residence, Medical Inspection and Physical Education

All students not living with their parents or guardians are required to live in approved hostels or lodgings. The University maintains two hostels of which one is for women. There are also some approved private hostels in Trivandrum. The mofussil Colleges provide residential accommodation for a fair proportion of their students.

Provision has been made for inspection by qualified medical officers of students in the Junior Intermediate and Junior B.A., and B.Sc. classes. Physical Education is at present compulsory for the Intermediate Course and the Colleges have on their staffs qualified Physical Instructors. Athletics in different forms have been provided for in all Colleges and the Inter-Collegiate Athletic Meet has to its credit a high standard of athletic performance. The University possesses a Tennis stadium and also another stadium for field sports. The University also provides instruction in Yogic Physical Culture.

Military Training

Under the Government of India's Scheme for the organization of the N. C. C. a senior division called 1st Travancore Battalion National Cadet Corps has been inaugurated under the University to provide for the Military training of University

for two years in the Ravenshaw College is awarded to an Oriya Graduate of the University for Post-Graduate study in any Science subject on rotation.

(ii) *The Jagannath Scholarship*: Two Scholarships of the value of Rs. 10 each per month is awarded for a period of two years in the Ravenshaw College to an I.A. or I.Sc. passed Oriya student securing the highest marks in the aggregate and reading B.A. or B.Sc. but not holding any other Scholarship.

(iii) *Utkal Co-operative Cloth and Yarn Syndicate Scholarship*: Two scholarships of the value of Rs. 25 each per month tenable for a period of two years in the Ravenshaw College are awarded—One to a student who is a permanent resident in Orissa and secures the highest mark at the B. A. Examination and another to a student who is a permanent resident in Orissa and secures the highest mark at the B.Sc. Examination and both read in the 5th year class having passed their respective degree examination at the first chance in the preceding annual examination subject to their not holding any other scholarship.

(iv) *Philip Memorial Scholarship*: Of the value of Rs. 8 per month tenable for a period of two years in a College affiliated to the Utkal University is awarded to a regular student who having passed the Annual I.Sc. Examination takes admission in the 3rd year B.Sc. Class and would have obtained a position next to the candidate or candidates eligible for Government Scholarship or any other Scholarship in the I.Sc. Examination.

Endowment for Foreign Studies

A sum of Rs. 12,000 has been donated to form the nucleus of a Fund for giving interest-free loans to young men and women for going abroad for higher studies. The University has also made provision of a sum of Rs. 10,000 in its budget estimates for the purpose during the current year.

Institution of a Chair in Physics

A sum of Rs. 8,00,000 has been donated by His Highness the Maharaja of Mayurbhanj to create a Chair in Physics under the auspices of the University. The Chair in Physics at the Post-graduate stage has been created and the Course has started functioning in the Ravenshaw College with effect from the beginning of the academic Session 1951-52.

Other Endowments for various purposes

1. A sum of Rs. 50,200 has been donated by Rai Bahadur Sadhu Charan Mohanty, Retired District Sessions Judge and Member, Orissa Public Service Commission by way of a Trust known as "The Utkal Scientific Research Fund," to form a nucleus for encouragement of research in different branches of Science.

2. An Annual Donation of Rupees one lac has been made by the Kalinga Foundation Trust Fund for the advancement of study and research in Geology under the auspices of the University.

The first instalment of Rs. 1,00,000 for the purpose has already been received and arrangement are afoot for starting the study and research in Geology.

3. A Donation of Rs. 1½ lacs has been made by Messrs. Birla Brothers for the construction of the Law College Hostel of the Utkal University and a further donation of Rs. 50,000 for the construction of the Science Block of Gangadhar Mehar College, Sambalpur.

4. A Donation in respect of the movable and immovable property disposed of by a Will made by Srimati Santisudha Dasi has been received by the University for awarding Scholarships to students in the Sriram Chandra Bhanj Medical College, Cuttack.

5. A Donation of Rs. 48,000 has been made by late Rai Bahadur Chaudhury Narsing Charan Mahapatra of Jajpur for improvement of the University Press, Oriya Language and Literature and for the improvement of an Intermediate College, a High School and a Sanskrit School within the University area.

Number of Successful candidates in the Different Examinations for the years 1951 and 52.

<i>Name of Examinations.</i>	1951	1952
Matriculation (Annual)	2,387	2,217
Matriculation (Supplementary)	813	847
* Matriculation (Thechnical Annual)	4	
Matriculation (Supply. Tech.)	1	
I.A. (Annual)	406	299

<i>Name of Examination</i>	1951	1952
I.A. (Supplementary)	134	282
I.Sc. (Annual)	289	325
I.Sc... (Supplementary)	119	159
I.Com. (Annual)	15	13
I.Com. (Supplementary)	7	5
B.A. (Pass) (Annual)	190	147
B.A. (Pass) (Supplementary)	142	212
B.A. (Hons.)	104	84
B.Sc. (Pass) (Annual)	40	69
B.Sc. (Pass) (Supplementary)	36	47
B.Sc. (Hons.)	47	41
B.Com. (Annual)	26	18
B.Com. (Supplementary)	8	7
Law Part I (May)	72	(June) 108
Law Part I (October)	65	(Nov.) 75
Law Part II (May)	70	(June) 88
Law Part II (November)	35	
B. O. L (Annual) ... ..	...	1
LL.M. ... ..	...

M.A. & M.Sc. (Part I) :

English	1	2
Sanskrit ... ..	...	...
History	1	3
Economics	4	8
Oriya	3	18
Mathematics	1	2
Chemistry	6	6
Botany	3	2

M.A. & M.Sc. (Whole) :

English	1	...
Sanskrit	2	3
Economics	10	8
Oriya	24	7
Mathematics	5	5
Chemistry	5	...
Botany	6	5
History ... ..	...	2
Diploma-in-Education	81	81
Diploma in German Language	1	2
Diploma in French Language	2	3
First M.B.B.S. (April)	25	26
First M.B.B.S. (October)	5	18

<i>Name of Examinations</i>	1951	1952
Final M.B.B.S. Part I (April)	14	14
Final M.B.B.S. (Part I) (October)	10	(Nov.) 14
Final M.B.B.S. (Part II) (May)	23	23
Final M.B.B.S. (Part II) (November)	19	(Oct.) 10
Spoken English (I.A.)	5	1
Spoken English (B.A.)	3	7

M.A. & M.Sc. (Part II) :

English	1
History	1
Economics	4
Oriya	2
Mathematics (Arts)	1
Botany	3
Chemistry	6

Convocation

For conferring degrees and awarding prizes and medals a Convocation is held annually under the Presidentship of the Chancellor of the University.

Below is given the number of candidates admitted to the different degrees in the years 1951 and 1952 :—

<i>Name of degrees</i>	1951	1952
Ph.D. (Science) ... ..	...	2
M.A.	41	32
M.Sc.	12	16
LL.B.	70	123
M.B.B.S.	42	33
B.A. (Pass)	372	390
B.A. (Hons.)	64	53
B.Sc. (Pass)	95	123
B.Sc. (Hons.)	28	34
B.Com.	34	25
B.O.L. ... ..	...	1

Inter-University Board

The University continues to be a member of the Inter-University Board of India and is represented by its Vice-Chancellor, Lt.-Col. Dr. P. Misra, M.Sc. (Cal.), Ph.D. (Leeds.)

Students. The Officers' Training Corps under the University was disbanded at the time of the inauguration of the N.C.C.

Students Advisory Bureau

This Bureau has been instituted to give students desirous of proceeding abroad for higher studies the information and guidance required by them.

Secretary—Sri E. P. Narayana Pillai, M.A. (Oxon.),
Lecturer, University College, Trivandrum.

Employment Bureau

The University has instituted an Employment Bureau with the object of helping those graduates and under-graduates who seek employment.

Publications

The University has published a number of Sanskrit and Malayalam books.

The University purchased from the late Diwan Bahadur Dr. S. Krishnaswami Aiyangar of Madras the "goodwill" of his Journal of Indian History. This Journal which is a historical research publication of All India status is being published by the University.

The Oriental Manuscripts Library in the University is publishing a Quarterly Sanskrit Journal and a Malayalam Journal.

Associations

Each of the Colleges has a number of associations interesting themselves in the various subjects of study or branches of athletics. Besides the College Associations, there is also the Travancore University Union, which is housed in its own buildings.

Budget

The University is supported by the Travancore-Cochin Government. Besides the fees received from students, the main source of income is the contribution from Government.

The financial year 1951-52 opened with a Fund balance of Rs. 37,96,512. The total receipts under Fees, Government grant and other miscellaneous accounts amounted to Rs. 42,51,446, against an anticipated receipt of Rs. 51,13,270, the decrease being Rs. 8,61,824. The decrease was mainly under Government grant.

The total expenditure during the year under various heads came to Rs. 37,52,255. The closing balance for the year came to Rs. 42,95,702.

The employees of the University, except persons engaged on special terms, are Government servants entitled to the benefits conferred by the State Pension Rules.

University Endowments

Each College awards several scholarships and prizes on the basis of examination results and on the basis of poverty. Besides the endowments already in existence in the Colleges when the University was started, the University has received a number of the following new endowments for the award of medals, prizes, scholarships and lectureships:—

- (1) The Meenakshi Amma Medal, (2) The Monkompu Aundy Aiyar Gold Medal, (3) The Muttamma Muthunayagom Memorial Gold Medal, (4) The Rao Sahib Udarasircmani T. Padmanabha Rao Medal, (5) The Rao Sahib Udarasircmani T. Padmanabha Rao Scholarship, (6) The Kerala Varma Valia Kcil Thampuran Gold Medal, (7) The Sachivottama Prize (Books), (8) The Patchu Aiyengar Prize (Books), (9) The Sachivottama Dr. Sir C. P. Ramaswami Aiyar Medal, (10) His Highness the Elaya Raja (Silver) Trophy, (11) The Andhra University Medal, (12) The Ananthasiva Aiyar Gold Medal, (13) His Highness the Prince Avittam Thirunal Gold Medal, (14) The Nagam Aiyar Medal, (15) The Sachivottama Shashtiabdepurthy Memorial Medal, (16) The Chandrasekharam Medal, (17) The Sachivottama Shashtiabdepurthy Memorial Prize, (18) The Professor N. Krishnaswamy Aiyar Memorial Medal, (19) The Mrs. Malloor Govinda Pillai Physical Culture Gold Medal, (20) The Sri Chitra Fine Arts Medal, (21) Her Highness the Maharani of Bikaner

The University also continues to be a member of the Association of Universities of the British Commonwealth.

University Library

The University Library consists of:—

(a) Books of various categories ...	9428	volumes
(b) Palm-leaf manuscripts on various subjects	699	„
(c) Periodicals (individual number)	85	„

In addition to the books mentioned above, the Law Section of the Ravenshaw College Library consisting of more than 2000 volumes made over to the University by the Government of Orissa is being kept still in the Kanika Library of the Ravenshaw College, Cuttack for want of accommodation in the University Library. Arrangement for having a separate accommodation for the University Library with modern Library equipments as far as possible is under contemplation.

For the purpose of purchasing books for the library a lump sum grant is provided in the Annual Budget of the Utkal University.

The University Library has established Inter-Library loan facilities with the Libraries of the University of Bombay and Calcutta.

Extension Lectures

To promote the culture and outlook of the University students, the University extends invitation to eminent scholars and educationists for delivering lectures under the auspices of the University each year at different times.

University Buildings

The University has no building of its own as yet. It is being accommodated in a building belonging to the Maharajadhiraj of Burdwan which has been leased out to the University by the Maharajadhiraj free of rent. The inadequacy of accommodation for the office of the University is very keenly felt.

The Government of Orissa have very kindly agreed to make over the present Government House at Lalbagh to the Uni-

versity for accommodation of its office and staff after the Government Houses has been shifted to the new Capital of Orissa at Bhubhaneswar.

THE ENCOURAGEMENT AND IMPROVEMENT OF ORIYA LANGUAGE AND LITERATURE

On the occasion of his Golden Jayanti, Dr. Harekrishna Mahtab, the then Prime Minister of Orissa made a Donation of Rs. 25,000 to the University to create a fund for the improvement and encouragement of Oriya Language and Literature. Before this, the Government of Orissa had created a fund with Rs. 25,000 for the same purpose and it was being administered by a Committee appointed by the Government and most of the members of the Committee were connected with the University also. The Government of Orissa dissolved the Committee and entrusted the unspent balance of Rs. 16,829-8-6 to the University, with the liability of previous commitments to finance the publication of some manuscripts already approved by the Committee before its dissolution.

Afterwards the University received further donations for the same purpose from other sources and the total amount in the Fund at present at the disposal of the University is Rs. 77,214-12-6 as given below :—

	Rs.	a.	p.
(1) Donation by Dr. H. K. Mahtab ...	25,000	0	0
(2) Government grant	16,829	8	6
(3) From the Prachi Publications	2,880	8	0
(4) Donation by the Viswanath Memorial Fund... ..	2,504	12	0
(5) Donation by Rai Bahadur Chaudhury N. C. Mahapatra	15,000	0	0
(6) Further Government grant	15,000	0	0
Total ...	77,214	12	6

A Committee has been constituted by the University to administer the fund. The Committee finances the best Oriya authors who contribute original works and important translation from other languages and literature for publication of their works.

Prize, (22) H. H. Martanda Varma Elaya Raja Prize (Books), (23) F. A. C. T. Prize (Books), (24) Prakulam C. Padmanabha Pillai Memorial Law Prize, (25) Athilakshmi Ammal Gold Medal, (26) Rajyasevanirata K. G. Parameswaran Pillai Medal, (27) Prakkulam C. Padmanabha Pillai Memorial Medal, (28) Dr. V. Nagoji Rao Gold Medal, (29) Indian Mathematical Conference Prize (Books or Cash), (30) Sri Chitra Prize (Cash), (31) Maharani Setu Parvati Bayi Prize (Cash), (32) The Sachivottama Sir C. P. Ramaswami Aiyar Scholarships, (33) Sir C. P. Medal, (34) Meenakshi Bhaskar Memorial Scholarship, (35) Vincent Endowment Scholarships, (36) Her Highness The Princess Karthika Thirunal Prize, (37) The Parur Samuham Scholarship, (38) The Alangad Samuham Scholarship, (39) A. M. Varki Memorial Cup (Silver Cup), (40) A. M. Varki Memorial Medal, (41) His Highness the Maharaja Travancore Thevaram Prize (Cash), (42) Sakharam Row Public Library Free Membership Endowment, (43) The Rao Sahib Subramania Karayalar Lectureship, (44) The Karthika Thirunal Theatre Fund, (45) Miss Watts Memorial Endowment, (46) Muslim Endowment, (47) Dr. Ram Alagappa Chettiar Endowment, (48) The Indian Mathematical Conference Prize, (49) Cullen Law Prizes, (50) Sadasivan Pillai Law Prize, (51) The Amukutty Rajagopalachari Gold Medal, (52) The Amukutty Rajagopalachari Scholarship, (53) P. Sankuni Menon Dewan Peishkar Gold Medal, (54) Ross Gold Medal, (55) Ravi Varma Gold Medal, (56) Training College Shasthiabadapurthi Medal, (57) P. Sakharam Rao Gold Medal, (58) R. S. Lepper Memorial Medal, (59) Justice Muthunayagam Memorial Prize, (60) K. P. Gopala Menon Prize for History, (61) The Kerala Samithi Prize, (62) The Mahakavi Ulloor Lectureship, (63) Tiruvalluvar Memorial Prize, (64) V. K. R. Menon Memorial Scholarship, (65) V. K. R. Memorial Trophy.

Provision for Research

The encouragement of research, especially in the various branches of Applied Science, being one of the main objects of the University, several steps have been taken for the realisation of this aim.

Provision has been made in the laws of the University for the award of degrees for research. The M.Sc., M.Litt., Ph.D., D.Sc., and D.Litt., degrees are awarded to graduates of this or other recognised Universities on the results of research work carried out in an approved institution, within or outside Travancore.

Research students are required to pay the following fees :—

Candidates working in Arts Departments Rs. 30 per annum.

Candidates working in Science Departments Rs. 45 per annum.

A Council of Research consisting of Heads of Departments of Study in Science and Technology in the University, representatives of Government and of Industry has been constituted with Vice-Chancellor as Chairman to advise the University on the working of the Department of Research.

The Central Research Institute, Trivandrum, has been founded with the object of providing increased facilities for research in Applied Science.

A bulletin is also being published by the Central Research Institute.

The Institute now consists of the following divisions :—

- (i) *Applied Biology* including Economic Botany, Entomology and Mycology ;
- (ii) *Applied Chemistry* including Organic and Inorganic Chemistry, Agricultural Bio-Chemistry and Industrial Chemistry.
- (iii) *Marine Biology and Fisheries* ;
- (iv) *Preventive Medicine* including Nutrition Research ;
- (v) *Observatory* including Astronomy and Meteorology ;
- (vi) *Statistics* ;
- (vii) *Applied Geology*.

The University has established a Marine Biological Laboratory and Aquarium for the promotion of marine biological research. The tanks of the Aquarium are the largest on the mainland of Asia.

The University has instituted twenty Research Scholarships each of the value of Rs. 40 per mensem and four Research Fellowships each of the value of Rs. 60 per mensem.

The following Research Scholarships, Lectureship and Prizes have been endowed :—

(1) *The Maharaja Martanda Varma Prize* of the value of Rs. 300, awarded once in two years to a Travancorean for the best literary or historical work produced.

(2) *The Maharaja Martanda Varma Scholarships* (two) of the value of Rs. 30 per mensem each, tenable for two years, awarded to qualified Travancoreans engaged in research work on Kerala Art and Literature and Kerala History.

(3) *Her Highness the Maharani Setu Parvati Bayi Prize* of the value of Rs. 300 awarded once in two years to a Travancorean for the best scientific monograph dealing with the practical applications of scientific research to industry or agriculture in the State.

(4) *Her Highness the Maharani Setu Parvati Bayi Fellowship* of the value of Rs. 50 per mensem, tenable for one year, awarded to a qualified Travancorean engaged in scientific research with special reference to its application to the industries or agriculture of the State.

(5) *The Chitra Research Scholarship* of the value of Rs. 30 per mensem, for research work in Kerala History or Archaeology.

(6) *Her Highness the Maharani Setu Parvati Bayi Lectureship* in Forest Research. A lecturer on a remuneration of Rs. 500 to be appointed every alternate year to deliver a course of lectures on some subject in Forestry.

(7) *The F. X. Perira Memorial Research Scholarship* of the value of Rs. 30 per mensem for research work on the Chemistry or Geology of the commercial minerals found in Travancore.

(8) *The S. Krishna Iyer Fellowship* of the value of Rs. 1,000 per annum for research work in Agriculture.

(9) *Kanan Devan Scholarships* (two) each of the value of Rs. 50 per mensem, tenable for two years, awarded to qualified Travancoreans engaged in research work in Agriculture.

(10) *Kanan Devan Fellowship* of the value of Rs. 70 per mensem, tenable for two years, awarded to qualified Travancoreans engaged in research work in Agriculture or other allied subjects.

(11) *Kanan Devan Prize* of the value of Rs. 1,000 awarded every year to a Travancorean for the best scientific monograph dealing with the practical applications of scientific research to Agriculture in the State.

(12) *H. H. the Princes Karthika Thirunal Research Scholarship* of Rs. 30 per mensem awarded for research work on the commercial crops of Travancore.

(13) *The Pattabbbhirama Aiyar Research Fund*.—Monthly donation of Rs. 1,000 to be utilized for the encouragement of Research in Soil Analysis, Intensive Cultivation and Fertilisers suited to the conditions of Travancore.

(14) *T. V. Krishna Aiyar's Scholarship* for research on Salt Industry of the value of Rs. 25 per mensem for research work on the methods of manufacture of any or all of the various salts in the salt pans of Travancore.

(15) Dr. Rm. Alagappa Chettiar has donated Rs. 1,50,000 for the institution of a Chair in Mineral Research in the University. An equal contribution will also be paid by the Government.

Department of Publications

With a view to enriching Malayalam and Tamil Literature by the production of up-to-date books of literary and scientific interest, a Department of Publications has been instituted. The staff consists of a Superintendent, an Assistant Superintendent and a few assistants.

For the present the Department is devoting itself to (a) the preparation of glossaries of scientific and technical terms in Malayalam, (b) the preparation of a standard Malayalam Grammar, comparative and historical, (c) the production of popular books dealing with scientific and other modern knowledge, and (d) the translation or adaptation of foreign classics selected for the purpose. Glossaries of terms in Mathematics, Physics, Chemistry, Botany, Zoology, and Education and thirty seven books of literary and scientific interest have been published so far.

Lectures

The University arranges for a number of extra-curricular Lectures every year.

Women's Education

H. H. the Maharaja's College for Women provides instruction for the Intermediate, B.A., and B.Sc. Degree courses. The College is partly residential, accommodation for a limited number of students being provided in a building situated on the premises of the College. Women students are also admitted to the other Colleges. The total number of women students in the University during the year 1952-53 was 4,748.

Degrees, Diplomas, etc.

The University offers in Arts, the Degrees of B.A. (Pass and Honours), M.A., Ph.D., and D.Litt.; in Science, the Degrees of B.Sc. (Pass and Honours), M.Sc., Ph.D., and D.Sc. The professional Degrees are Bachelor of Teaching, Bachelor of Laws and Bachelor of Science (Engineering), Master of Laws and LL.D. There are also Diplomas in Textile Manufacture, Textile Chemistry, Civil, Mechanical, and Electrical Engineering, Agriculture, Bacteriology and Hygiene, Forestry and Shorthand and Type-writing. In Oriental Studies, the University confers the title of Mahopadhyaya (in Sanskrit), Sahityavisarada (in Malayalam), Vidwan (in Tamil) and Vidwan (in Hindi).

The Degrees of D.Sc., D.Litt., and LL.D., may be conferred as Honorary Degrees also.

Courses of Study

Intermediate Examination in Arts and Science.—The Intermediate course forms part of and leads to the courses for the Degree and only those who are holders of the English School Leaving Certificate issued by the Director of Public Instruction, Travancore, Cochin State and declared eligible for admission to a course of study in this University or have passed an examination recognized by the Syndicate as equivalent to it, are admitted to the course.

The course extends over two years. The subjects of study and scheme of examination are as follows:—

- Part I—English (Prose, Poetry and Composition).
- Part II—A Second Language.

One of the following languages may be offered :

- (a) Classical: Sanskrit, Arabic, Syriac, Latin, Persian, Hebrew.
- (b) Modern.
 - (i) European:—French, (ii) Indian:—Urdu, Tamil, Hindi, Malayalam.

Part III—Three subjects to be selected out of list A, list B or any of the groups included in list C:—

List A.—Logic, Indian History, Ancient History, Modern History, Outlines of Islamic History from 632 to 1258, Music, Elements of Psychology, Geography, Elements of Commerce and Accountancy.

List B.—Mathematics, Physics, Chemistry, Biology, Geography, Agriculture.

List C.—(i) Mathematics, Physics and Logic or Elements of Psychology, (ii) Mathematics, Physics and Music, (iii) Biology, Chemistry and Logic or Elements of Psychology, (iv) Biology, Chemistry and Music, (v) Biology, Chemistry and Economics, (vi) Biology Chemistry and History, (viii) Mathematics, Elements of Commerce, Accountancy and Logic.

There will be three papers in English, two papers in the Second Language and two papers in each of the subjects offered under Part III.

A candidate shall be declared to have passed the Intermediate Examination if he appears for all the three Parts and obtains not less than 35 per cent of the marks in each part. Candidates who pass in all the Parts at the same examination and who obtain not less than 50 per cent of the total marks shall be placed in the First Class; all the other successful candidates shall be placed in the IInd Class. Candidates who pass in all the parts at the same examination and obtain not less than 60 per cent of the marks in any subject shall be declared to have gained distinction in that subject. Candidates who pass the whole examination by passing in the several parts at separate examinations shall be placed in the third class.

Bachelor of Arts (B.A.).—The course of study extends over a

period of two years after the Intermediate Examination. The subjects of study and scheme of examination are as follows :—

Part I—English—Shakespeare, Modern Poetry, Modern Prose, General English (4 papers).

Part II—Second Language —(2 papers) one of the following :—

- (a) Classical : Sanskrit, Arabic, Syriac, Persian.
- (b) Modern : (i) European : French, German ;
(ii) Indian : Malayalam, Tamil, Hindi, Urdu.

Part III—Optional subjects. One of the following groups :

Group (i-a) Philosophy (5 papers), *(i-b)* Philosophy (5 papers), *(ii-a)* History and Economics (5 papers), *(ii-b)* Economics and History (5 papers), *(ii-c)* History, Economics and Islamic History and Culture (5 papers), *(ii-d)* Politics (5 papers), *(iii-a)* Sanskrit and Early Indian History (6 papers), *(iii-b)* Malayalam or Tamil with Sanskrit or Early South Indian History (6 papers), *(iii-c)* Hindi with Sanskrit or Malayalam or Tamil or Indian History—Muslim period (6 papers), *(iv)* Music, Economics and Politics (6 papers).

The minimum for a pass is 35 per cent in Part I, 35 per cent. in Part II and in Part III, 30 per cent in each division of the optional group and 35 per cent. of the total. Successful candidates getting not less than 60 per cent are placed in the First Class, those obtaining not less than 50 per cent are placed in the Second Class and those obtaining less than 50 per cent are placed in the Third Class. Provision has also been made by which Bachelors of Arts may qualify in a different optional group or different second language. Such candidates are required to undergo a course of one year in a College in the new subject selected.

Bachelor of Arts (Honours)—B.A. (Hons.).—The course extends over a period of three years after the Intermediate examination. A candidate for Honours is required to pass a Preliminary examination in English, in (i) General English and (ii) Nineteenth Century Prose. In the case of candidates who have selected Branch III (English Language and Literature), the Preliminary examination will be in (i) Composition as above and (ii) The History of England treated in relation to the History of the (English Language and Literature). The subjects of study for the Final examination are as follows :—Branch I—Philosophy

(8 papers). Branch II—History (8 papers), Branch III—Economic (8 papers), Branch IV Politics (8 papers) Branch V—English Language and Literature (9 papers), Branch VI—Sanskrit Language and Literature, Branch VII—Malayalam Language and Literature (9 papers).

In addition to the papers mentioned above, there is a *viva voce* examination.

No candidate will be permitted to undergo the complete Final examination more than once. The minimum for a pass is 40 per cent of the total marks and not less than 80 per cent in each division of the examination. Successful candidates getting not less than 60 per cent are placed in the First Class, those getting not less than 50 per cent are placed in the Second Class and rest are placed in the Third Class. Those who fail in the B.A. (Hons.) examination but have obtained $33\frac{1}{3}$ per cent of the total and at least 25 per cent in each division of the examination are recommended for the B.A. Degree.

Master of Arts (M.A.).—A candidate who has passed the B.A., or B.Sc., Degree examination of this University or some other equivalent examination will be permitted to appear for the M.A. Degree examination after he has undergone the prescribed course of study for a period of not less than two years in a College. The courses of study, syllabuses, subjects for the examination, schemes of examination and time-table for the M.A. Degree examination are the same in all Branches as for the Final examination for the B.A. (Hons.) Degree, in the subjects in the corresponding Branch.

Bachelor of Science (B.Sc.).—The course of study extends over two years after the Intermediate examination. The subjects of study and the scheme of examination are:—Part I—English, Part II—Second Language and Part III—Optional subjects.

The courses of study for Parts I and II are the same as those prescribed for the B.A. Degree examination.

Part III—Optional Subjects.—One of the following groups of subjects may be taken at the option of the candidate:—

Main

Subsidiary

(i-a) Mathematics

(i-b) Mathematics

(ii-a) Physics

... Physics.

... Mathematics.

<i>Main</i>	<i>Subsidiary</i>
(ii-b) Physics ...	... Chemistry.
(iii-a) Chemistry ...	... Physics.
(iii-b) Chemistry ...	... Botany.
(iii-c) Chemistry ...	... Zoology.
(iv-a) Botany ...	... Chemistry.
(iv-b) Botany ...	... Zoology.
(v-a) Zoology ...	... Chemistry.
(v-b) Zoology ...	... Botany.

The examination in the subsidiary subject will be of a less advanced character than that in the same subject of the main standard.

The scheme of examination is as follows:—

Groups:—

- (i-a) Mathematics, 6 papers.
- (i-b) Mathematics Main, 4 papers; Physics Subsidiary, 2 papers and a practical examination.
- (ii-a) Physics Main, 4 papers and a practical examination; Mathematics Subsidiary, 2 papers.
- (ii-b) Physics Main, 4 papers and a practical examination; Chemistry Subsidiary, 2 papers and a practical examination.
- (iii-a) Chemistry Main, 3 papers and 2 practical examinations; Physics Subsidiary, 2 papers and a practical examination.
- (iii-b) Chemistry Main, 3 papers and 2 practical examinations; Botany Subsidiary, 2 papers and a practical examination.
- (iii-c) Chemistry Main, 3 papers and 2 practical examinations, Zoology Subsidiary, 2 papers and a practical examination.
- (iv-a) Botany Main, 2 papers and 2 practical examinations; Chemistry Subsidiary, 2 papers and a practical examination.
- (iv-b) Botany Main, 2 papers and 2 practical examinations; Zoology Subsidiary, 2 papers and a practical examination.
- (v-a) Zoology Main, 2 papers and 2 practical examinations; Chemistry Subsidiary, 2 papers and a practical examination.
- (v-b) Zoology Main, 2 papers and 2 practical examinations; Botany Subsidiary, 2 papers and a practical examination.

The minimum for a pass is 35 per cent in Part I, 35 per cent in Part II and in Part III, 30 per cent in each divisions of the optional groups and 35 per cent of the total. Successful candidates getting not less than 60 per cent are placed in the First Class, those obtaining not less than 50 per cent are placed in the Second Class, and those obtaining less than 50 per cent are placed in the Third Class. Provision has also been made by which Bachelors of Science may qualify in a different optional group. Such candidates are required to undergo a course of one year in a college in the new subject selected.

Bachelor of Science (Honours)—B.Sc. (Hons.).—The course extends over a period of 3 years after the Intermediate examination. A candidate for Honours is required to pass a Preliminary examination in English 2 papers (General English and Nineteenth Century Prose). The subjects of study for the Final examination are as follows:—

In all Branches other than Branch I—Mathematics—candidates are required to offer one of the following as the main subject and another of these or Mathematics as the Subsidiary subject:—
1. Physics, 2. Chemistry, 3. Botany, 4. Zoology.

The examination in the Subsidiary subject consists of two papers and a practical examination.

Branch I—Mathematics.—There will be 8 papers, each of 3 hours' duration; 3 papers are set in Pure Mathematics, 3 in Applied Mathematics and one in each of the two optional subjects selected.

Branch II—Physics.—There will be 6 theory papers, each of 3 hours' duration and 4 practicals, each of 3 hours' duration. Marks are also allotted for laboratory note books.

Branch III—Chemistry.—The examination in the main subject consists of 5 theory papers, each of 3 hours' duration and 4 practicals each of 6 hours' duration. Marks are also allotted for laboratory note books.

Branch IV—Botany.—The examination in the main subject consists of 5 theory papers, each of 3 hours' duration and 4 practicals each of 3 hours' duration. Marks are also allotted for laboratory note books and plant collections.

Branch V—Zoology.—The examination in the main subject

consists of 5 theory papers, each of 3 hours' duration and one paper of 3 hours' duration in the special subject chosen. There are 3 practicals, each of 3 hours' duration in the main subject and one of two hours' duration in the special subject. Marks are also allotted for laboratory note books and microslides.

No candidate will be permitted to undergo the complete Final examination more than once. The minimum for a pass is 40 per cent of the total marks and not less than 30 per cent in each division of the examination. Successful candidates getting not less than 60 per cent are placed in the First Class, those getting not less than 50 per cent are placed in the Second Class and the rest are placed in the Third Class. Those who fail in the B.Sc. Honours examination but have obtained $32\frac{1}{2}$ per cent of the total and at least 25 per cent in each division of the examination are recommended for the B.Sc. Degree.

Master of Science (M.Sc.).—A candidate who has passed the B.Sc. Degree examination of this University or some other equivalent examination will be permitted to appear for the M.Sc. Degree examination after he has undergone the prescribed course of study for a period of not less than two years in a College. The course of study, syllabuses, subjects for examination, schemes of examination and time-tables for the M.Sc. Degree examination shall be the same in all Branches as for the Final examination for the B.Sc. Honours Degree, in the main subject in the corresponding Branch.

Master of Science (M.Sc.) in Statistics.—The course of study extends over two academic years. Admission to the course is open to candidates who have passed the B.Sc. Degree Examination with any one of the following groups of optional subjects :—

- (i) Mathematics Main and Mathematics Subsidiary.
- (ii) Mathematics Main and Physics Subsidiary.
- (iii) Physics Main and Mathematics Subsidiary.

The examination consists of six written papers each of 3 hours' duration and two practical tests each of 4 hours' duration and a *viva-voce*. Successful candidates getting not less than 60 per cent of the total marks are placed in the First Class; those getting not less than 50 per cent in the Second Class and those getting not less than 30 per cent in each paper and not less than 40 per cent of the grand total in the Third Class all other candidates shall be deemed to have failed in the examination.

Bachelor of Teaching (B.T.).—Graduates of this or any other recognised University who have undergone the prescribed course of study for a period of one year will be admitted to the examination.

The course shall include :—

- (i) A. General Principles of Education. B. Educational Psychology. C. General Methods. D. School Organization and Hygiene. E. Methods appropriate to the teaching of two of the following subjects. (a) An Indian Language. (b) English. (c) Primary Education. (d) Mathematics. (e) Physical Science. (f) Natural Science. (g) History. (h) Geography. (i) Domestic Science. (j) Music.

In connection with each of the subjects detailed under E, a special unit of study shall be specified each year for more intensive treatment.

(ii) Practical training including observation of and practice in teaching, the making of teaching equipment and school organization.

(iii) Candidates shall undergo courses in (a) Physical Education and (b) Arts or Music or Crafts as prescribed by the College.

The scheme of examination is as follows :—

Written Examination :

1. Theory of Education A.B. (This paper shall consist of two questions under A and 4 questions under B). 2. General Methods C. 3. School Organization and Hygiene D. 4. Methods of Teaching E. Optional subjects (2 of the following) :—

(a) An Indian Language. (b) English. (c) Primary Education. (d) Mathematics. (e) Physical Science. (f) Natural Science. (g) History. (h) Geography. (i) Domestic Science. (j) Music.

No candidate shall be declared to be qualified for the B.T. Degree unless he has passed the written examination and unless his practical work has been declared satisfactory by the Principal of the College. The minimum for a pass will be 35 per cent in each of the 5 papers and not less than 40 per cent in the 3 papers

taken together. Of the successful candidates those who obtain not less than 60 per cent of the total marks shall be placed in the First Class, those who obtain not less than 50 per cent shall be placed in the Second Class and the rest shall be placed in the Third Class. Successful candidates who obtain not less than 60 per cent of the marks in a paper relating to the Methods of Teaching shall be deemed to have obtained distinction in that subject.

Bachelor of Law (B.L.).—Graduates in Arts or Science of this or other recognised University are admitted to the course which extends over two years. The first examination in Law which is held at the end of the first year consists of the following papers :—

Jurisprudence (1 paper), Roman Law (1 paper), The Law of Contracts including Negotiable Instruments and Specific Relief Act (2 papers). The Law of Torts (1 paper), Indian Constitutional Law (1 paper.)

The minimum for a pass is 40 per cent of the total marks and not less than one-third of the marks in each division of the examination. Those who obtain not less than 60 per cent are placed in the First Class, those obtaining 50 per cent and above are placed in the Second Class and the remaining successful candidates are placed in the Third Class.

The Final examination (B.L.) is open to those who having passed the First examination in Law have undergone the prescribed course of study for one academic year.

The final examination consists of the following papers :—

(i) The Law of Property with special reference to the Transfer of Property Act, the Indian Trusts Act and the Indian Easements Act (2 papers), (ii) Hindu Law including Marumakathayam Law (1 paper), (iii) Muhammadan Law (1 paper), (iv) The Principles of Land Tenures in the Madras Presidency (1 paper), (v) The Law of Evidence (1 paper), (vi) Criminal Law (Indian Penal Code) (1 paper.).

The minimum for a pass is 40 per cent of the total marks and not less than one-third of the marks in each division of the examination. Successful candidates who obtain not less than 60 per cent of the total marks shall be placed in the First Class and those who obtain not less than 50 per cent. shall be placed

in the Second Class. All other successful candidates shall be placed in the Third Class.

Master of Laws.—Candidates appearing for the M.L. Degree examination are required to have passed not less than two years previously the B. L. Degree examination of this University or any other examination accepted by the Syndicate as equivalent thereto. The examination consists of two parts: Part I, the written examination and Part II, the thesis. A candidate will not be allowed to submit his thesis until he has secured a pass in the written examination. The thesis is to be prepared under the supervision of a recognised Teacher of Law in the University or any other person approved for the purpose by the Syndicate.

One of the following Branches may be offered for the written examination.

Branch I—Jurisprudence. Branch II—Constitutional Law and International Law. Branch III—Law of Crimes and Torts. Branch IV—Law of Contracts including Mercantile Law. Branch V—Hindu, Muhammadan and other personal Laws, Branch VI—Law of Property.

(5 papers in each Branch)

Candidates who obtain not less than one-third of the marks in each paper and not less than 40 per cent of the total marks are declared to have passed the examination. Candidates who obtain not less than 60 per cent of the aggregate marks are placed in the First Class; those obtaining not less than 50 per cent of the aggregate are placed in the Second Class; all other successful candidates are placed in the Third Class.

Bachelor of Science (Engineering.)—B.Sc. (Eng.).—The minimum qualification for admission to the Degree Course is the Intermediate examination of this University with Mathematics, Physics and Chemistry as optionals or any other examination accepted by the Syndicate as equivalent thereto. The course of study extends over 4 years.

Candidates appearing for the University examinations in Engineering (for both Degree and Diploma) shall be required to appear for all the groups at the first sitting and obtain the required minimum in each of the groups. However, candidates who fail to obtain the group minimum in not more than one of the

groups, but have obtained the minimum in sessional work and on the aggregate will be promoted to the next higher class. Candidates so promoted shall at the next University examination appear for all the subjects of the particular group in which they have previously failed and the result of their next higher examination shall be withheld until they pass the failed group.

First Examination in Engineering, Part I.—The course extends over one academic year. The following are the subjects for study and examination.

Group A—Mathematics and Mechanics. Group B—Applied Physics and Engineering Chemistry. Group C—Materials and Construction, Surveying, Group D—Practical Geometry, Building Drawing and Machine Drawing, Group E—Surveying (Practical). Group F—Sessional work.

The minimum for a pass will be 35 per cent of the marks in each group of written papers, 40 per cent in practical, 60 per cent of the sessional marks and 50 per cent of the total marks (examination plus sessional marks.)

First Examination in Engineering, Part II.—The course extends over one academic year after passing the First examination in Engineering, Part I, (or after having been promoted to the second year class). The following are the subjects for study and examination:—

Group A. Mathematics and Strength of Materials. Group B. Mechanical Engineering and Electrical Engineering. Group C. Machine Drawing and Hydraulics. Group D. Surveying, Building, Drawing Materials and Construction. Group E—(Practical) Workshop Practical and Surveying. Group F—Sessional Work.

The minimum for pass will be 35 per cent of the marks in each group of written papers, 40 per cent in practical 60 per cent of sessional marks and 50 per cent of the total marks which include all the marks of the previous year as carry over.

B.Sc. Degree Examination in Engineering, Part I:—The course extends over one academic year after passing the First Examination in Engineering, Part II, (or after having been promoted to the III year class) and consists of three branches, the subjects for study and examination being as follows:

(a) *Civil Engineering:*

Group A Mathematics; Strength of Materials and Theory of Structures.

- Group B Structural Engineering and Hydraulics.
- Group C Docks, Harbours and Geology ; Roads and Railways.
- Group D Surveying ; Estimating and Civil Engineering Drawing.
- Group E Practical : Strength of Materials Laboratory ; Hydraulics Laboratory ; Surveying.
- Group F—Sessional work.

(b) *Mechanical Engineering :*

- Group A Mathematics ; Strength of Materials and Theory of Structures.
- Group B Structural Engineering and Hydraulic Machinery.
- Group C Theory of Machines and Machine Drawing.
- Group D Heat Engines ; Electrical Technology and Economics.
- Group E Practical : Workshop Practice ; Hydraulics Laboratory ; Heat Engines Laboratory and Strength of Materials Laboratory.

Group F Sessional work.

(c) *Electrical Engineering :*

- Group A Mathematics ; Strength of Materials and Theory of Structures.
- Group B Structural Engineering and Hydraulic Machinery.
- Group C Electrical Machinery and Electrical Drawing.
- Group D Heat Engines ; Electrical Measurements and Measuring Instruments ; Economics.
- Group E Practical Workshop Practice ; Hydraulics Laboratory, Strength of Materials Laboratory and Electrical Laboratory.
- Group F Sessional work.

Each candidate is required to take up the subjects prescribed for the branch he chooses. The minimum for a pass will be 35 per cent of the marks in each Group of written papers, 40 per cent in practical, 60 per cent of the sessional marks and 50 per cent of the total marks (examination marks *plus* sessional marks.)

B.Sc. Degree Examination in Engineering, Part II: The course extends over one academic year after passing the B.Sc. Degree examination in Engineering Part I, (or after having been

promoted to the Fourth year class) and consists of 3 branches, the subjects of study and examination being as follows :

(a) *Civil Engineering :*

Group A Strength of Materials and Theory of Structuresz Structural Engineering.

Group B Irrigation ; Water Supply and Sanitary Engineering.

Group C Surveying ; Agriculture and Town Planning.

Group D Design and Drawing (2 papers.)

Group E Practical: Surveying; Strength of Materials Testing Laboratory and *viva voce*.

Group F Sessional work.

(b) *Mechanical Engineering :*

Group A Heat Engines (2 papers.)

Group B Workshop Administration ; Workshop Practice and Machine Tools ;

Group C Automobile and Aeronautical Engineering and Machine Design and Drawing.

Group D Power Plant Engineering ; Electrical Generation and Distribution.

Group E Practical: Workshop Practice ; Heat Engines Laboratory ; Electrical Laboratory and *viva voce*.

Group F Sessional work.

(c) *Electrical Engineering :*

Group A Electrical Machinery (2 papers.)

Group B Transmission and Protection ; Heat Engines.

Group C Electrical Communications and Electrical Drawing.

Group D Power Plant Engineering ; Electrical Generation and Distribution.

Group E Practical: Electrical Laboratory, Mechanical Engineering Laboratory and *viva voce*.

Group F Sessional work.

Each candidate is required to take up the subjects prescribed for the branch which he selected for the B.Sc. Degree Examination in Engineering Part I.

The minimum for pass will be 35 per cent of the marks in each group of written papers, 40 per cent in practical, 60 per cent of the sessional marks and 50 per cent of the total marks (examination marks *plus* sessional marks *plus* whole of the marks secured for the B.Sc. Degree Examination, Part I.)

Successful candidates will be admitted to the degree of B.Sc. (Eng.), and those who obtain not less than $\frac{2}{3}$ of the total marks shall be placed in the First Class and all other successful candidates shall be placed in the Second Class. Candidates obtaining not less than 75 per cent of the total marks shall be declared to have passed the examination with Distinction.

Diploma in Engineering

The minimum qualification for admission to the Diploma course is the Travancore English School Leaving Certificate Examination with Eligibility for admission to a University course of study or any other examination accepted by the Syndicate as equivalent thereto. The course of study extends over three years and a fourth year has to be spent in practical training in an approved workshop or approved engineering works. The diploma will be awarded to the candidates on the production of a certificate showing that they have undergone approved practical training for a period of 12 months at least eight months of which shall be spent after the Diploma examination in Engineering, Part II.

First year Diploma Examination in Engineering

Candidates for admission to the First year Diploma Examination in Engineering shall be required to have passed the E.S.I.C. Examination and been declared eligible for admission to a course of study in this University or any other examination accepted by the Syndicate as equivalent thereto. They should further have subsequently attended the Maharaja's Technological Institute, Trichur, for a period of not less than one academic year.

The following are the subjects for study and examination :—

Group A Mathematics ; Applied Mechanics

Group B Materials and Construction ; Surveying

Group C Civil Engineering Drawing ; Machine and Geometrical Drawing.

Group D Practical :

Workshop Practice ; Surveying.

Group E Sessional work.

Second year Diploma Examination in Engineering

Candidates for the Second Year Diploma Examination in Engineering shall have passed the First Year Diploma Examination in Engineering (or after having been promoted to the 2nd

year class) and attended the Maharaja's Technological Institute, Trichur, for a period of not less than one academic year and specialised in any one of the branches, namely, Civil Engineering (General or Public Health), Mechanical Engineering and Electrical Engineering (Power or Communication).

The following are the subjects for study and examination :—

(a) *Civil Engineering* :

- Group A Applied Mechanics ; Hydraulics
- Group B Mechanical and Electrical Engineering ; Materials and Construction
- Group C Estimating ; Civil Engineering Drawing
- Group D Practical :
Surveying
- Group E Sessional work.

(b) *Mechanical Engineering* :

- Group A Applied Mechanics ; Hydraulics
- Group B Technical Electricity ; Heat Engines
- Group C Workshop appliances and tools ; Machine Drawing.
- Group D Practical :
Workshop Practice
- Group E Sessional work.

(c) *Electrical Engineering* (Power and Communications)

- Group A Applied Mechanics ; Electrical Technology
- Group B Technical Electricity ; Heat Engines
- Group C Electrical Measurements and Measuring Instruments ; Electrical Drawing
- Group D Practical :
Workshop Practice.
- Group E Sessional work.

Third year Diploma Examination in Engineering

Candidates for the Third Year Diploma Examination in Engineering shall have passed the Second Year Diploma Examination in Engineering (or after having been promoted to the 3rd year class) and attended the Maharaja's Technological Institute, Trichur, in the *same* branch of specialisation for a period of not less than one academic year.

The following are the subjects for study and examination :

- (a) *Civil Engineering* :
Group A Strength of Materials and Structural Engineering ; Hydraulics and Irrigation
Group B Civil Engineering (2 papers)
Group C Civil Engineering Drawing ; Estimating
Group D Practical :
Strength of Materials Laboratory ; Surveying
Group E Sessional work.
- (b) *Mechanical Engineering* :
Group A Hydraulic Machinery ; Heat Engines
Group B Workshop Theory and Management ; Automobile Maintenance and Repairs.
Group C Electrical Engineering ; Machine Drawing and Design.
Group D Practical :
Heat Engines Laboratory ; Workshop Practice.
Group E Sessional work.
- (c) *Electrical (Power) Engineers* :
Group A Hydraulics and Hydraulic Machinery ; Automobile Maintenance and Repairs.
Group B Generation Transmission and Distribution Electrical Machinery.
Group C Electrical Communications ; Estimating and Drawing.
Group D Practical :
Electrical Laboratory ;
Workshop Practice.
Group E Sessional work.
- (d) *Electrical (Communications) Engineering* :
Group A Line Transmission & Exchange Equipment
Group B Radio Communications (2 papers)
Group C Electrical Machinery ; Estimating and Drawing
Group D Practical :
Communications Laboratory ;
Workshop Practice.
Group E Sessional work.

The minimum for a pass for all the Diploma Examinations in Engineering mentioned above will be 35 per cent of the marks in each group of different papers 45 per cent in practical, 60

per cent in sessional work and 50 per cent of the total Examination *plus* sessional and workshop practice marks.)

Successful candidates will be awarded the Diploma in Engineering. Candidates who obtain not less than $\frac{2}{3}$ of the total marks shall be placed in the First Class and all the other candidates shall be placed in the Second Class.

Diploma Courses in Textile Manufacture and Textile Chemistry

The minimum qualification for admission to the courses is the English School Leaving Certificate with eligibility for admission to a University Course of Study and 50 per cent of the total marks and not less than 60 per cent on Elementary Mathematics and Elementary Science combined. The course of study extends over three years.

The courses in Textile Manufacture and Textile Chemistry consist of theoretical and practical instruction in the following subjects :—Mathematics, Mechanics, Chemistry, Physics, Free-hand Drawing, Model Drawing, Machine Drawing, Spinning and Weaving, Textile Fibres, Fabric Structure, Spinning and Weaving calculations, Design and Analysis of cloth, Preparation of yarns and fabrics including sizing, mercerising, bleaching, dyeing, printing, and finishing, Industrial Economics, Descriptive Engineering, and Workshop Practice.

The course in Textile Manufacture includes advanced instruction in Spinning, Sizing and Weaving.

The course in Textile Chemistry includes advanced instruction in Colour Chemistry, Chemical Engineering, Bleaching, Dyeing, Printing and Finishing.

The First examination in Textile Technology or Textile Chemistry is held at the end of the second year of the Course, and the Diploma examination at the end of the third year. Candidates who obtain not less than 40 per cent of the total marks and not less than 35 per cent in each subject or group of subjects shall be declared to be eligible for Diploma in that Group. Those who obtain not less than 60 per cent of the total marks shall be declared to have passed the examination with distinction.

Titles in Oriental Studies

Mahopadhyaya (Sanskrit).—Admission to the Mahopadhyaya course is open to those who have passed the Sanskrit Entrance examination conducted by this University or any other equivalent examination.

The Sanskrit Entrance examination is open to all candidates who have passed the Sastri Test conducted by the Travancore Education Department. The subjects for the examination are ; (i) Sahitya, (ii) Vyakrana, (iii) Nyaya and Mimamsa, (iv) English and (v) Another Indian Language.

The course of study for the Mahopadhyaya title extends over a period of 4 years and consists of two parts, the Preliminary and the Final. The Preliminary examination held at the end of the second year consists of two parts :—

Part I.—General: Prescribed Text-books and Part II—Special: One of the following branches of study :—
Nyaya, Vyakarana, Sahitya, Jyotisha, Vedanta or Mimamsa.

The Final examination at the end of the fourth year consists of two parts—Part I: General—The History of Sanskrit Language and Literature ; Part II: Special—One of the following branches of study :—Nyaya, Vyakarana, Sahitya, Jyotisha, Vedanta, or Mimamsa.

The minimum for a pass in the Preliminary and Final examinations is 40 per cent of the total marks of the examination. Successful candidates who obtain not less than 60 per cent of the total marks in the Final Examination shall be placed in the first class and those who obtain not less than 50 per cent shall be placed in the Second class. All other successful candidates shall be placed in the third class.

Sahitya Visarada (Malayalam) and Vidvan (Tamil and Hindi) Examination.—Candidates for the Sahitya Visarada or Vidvan (Tamil) examinations should have passed the Malayalam or Tamil High School Examination or the Sastri Test of the Travancore Education Department. Candidates who pass the Travancore E.S. L.C. Examination with Malayalam, Tamil as their Second Language or optional subject will also be eligible for admission to the Sahityavis and Tamil Vidyan Examination Besides the main language (Malayalam

or Tamil) candidates have to offer a subsidiary second language, Tamil or Sanskrit for the Sahitya Visarada examination and Sanskrit for the Vidvan examination, English will be the compulsory second language for both the examinations.

The course of study for each examination extends over a period of two academic years. The subjects for the examinations and the divisions are as follows :—

Division 1.—*Main Language*.—Prescribed text-books, Grammar, History of Language and Composition (5 papers.)

Division 2.—*Subsidiary second language*.—Prescribed text-books (one paper.)

Division 3.—*Compulsory second language* (English).—Prescribed text-books (one paper.)

Vidvan Title in Hindi

Candidates for the Vidvan Examination in Hindi shall offer Hindi as the Main Language and Sanskrit as the Subsidiary language.

Candidates for the Vidvan Title in Hindi shall be required to have passed the Hindi Entrance Examination conducted by this University or the English School Leaving Certificate or the Secondary School Leaving Certificate Examination of the State of Travancore-Cochin with Hindi as one of the subjects or any other examination accepted by the Syndicate as equivalent thereto with Hindi as one of the subjects and to have subsequently undergone the prescribed course of study for a period of not less than two academic years in an Institution approved by the Syndicate and to have passed the Vidvan Examination in Hindi :

Provided, however, that until such time as the course is started in an Institution under the University, candidates shall be allowed to appear for the Hindi Vidvan Examination privately two years after passing the qualifying examination.

Candidates who have passed the following examinations shall

be granted exemption from the operation of the above Ordinance and allowed to appear for the Vidvan Examination in Hindi :—

- (i) Vidvan (Hindi) Preliminary Examination conducted by this University ;
- (ii) Part II—Hindi—of the B.A./B.Sc. Degree Examination of this University or an examination accepted by the Syndicate as equivalent thereto ;
- (iii) The Rashtrabhasha Visarad Diploma Examination of the Dakshina Bharata Hindi Prachar Sabha, Madras.

Note.—Candidates under this category shall be allowed to appear for the Vidvan Examination in Hindi till the examination of March-April 1953.

The scheme of examination shall be as follows :—

	<i>Hours.</i>	<i>Marks.</i>
Part I		
Prescribed text-books—Poetry ...	3	150
Paper II		
Prescribed text-books—Prose ...	3	150
Paper III		
Grammar, History of Language, Rhetoric, Prosody and Poetics	3	150
Paper IV		
History of Literature and Literary Criticism	3	150
Paper V		
Essay	3	150
Paper VI		
Subsidiary Language—Sanskrit ...	3	150
Total ...		900

All the first five papers shall be set and answered in Hindi.
The sixth paper shall be set in Sanskrit and answered in Hindi.

A candidate shall be declared to have passed the Examination if he obtains not less than 40 per cent of the total marks for the first five papers and 30 per cent in the Sanskrit paper.

Reorganization of Sanskrit Education

Government appointed a Special Committee to enquire into the position of Sanskrit education in the State and formulate proposals for the reorganization of Sanskrit studies. The Committee submitted its report to Government who have approved the main academic recommendations of the Committee in the form proposed by the Syndicate. The Senate has since instituted a two-year Entrance Course in Sanskrit to prepare holders of the Sastri Certificate for admission to the Intermediate class and a two-year course for holders of the Mahopadhyaya Title to enable them to take the Degree Examination in Sanskrit. The entrance class was started in the Sanskrit College during 1951-1953. The Post-Mahopadhyaya Degree Class was started in the Sanskrit College during the academic year 1950-51.

The Senate has instituted the Post-Sahitya Visarada Degree course in the University to enable candidates who have taken the Sahitya Visarada Title of this University to appear for the Degree Examination in Malayalam. The post-Sahitya-visarada Degree class was also started in the Sanskrit College during the current academic year (1952-53).

Candidates for the Post Mahopadhyaya and Post-Sahitya-visarada Degree Examinations will have to appear for

Part I—English Prose and General English (2 papers).

Part II—

For Post-Mahopadhyaya

Malayalam or Hindi (2 papers)

For Post-Sahityavisarada

Sanskrit or Hindi (2 papers).

Note.—The courses of studies, syllabuses and Text-books for Parts I and II above are the same as those prescribed for B.A./B.Sc. Degree examination. The Post-Mahopadhyaya and Post-Sahityavisarada candidates are exempted from appearing for Sanskrit or Malayalam respectively under Part III by virtue of their proficiency in the language concerned.

Intermediate Examination in Commerce

Admission to the intermediate Course in Commerce shall be

open to candidates who are holders of the Secondary School Leaving Certificate issued by the Director of Public Instruction, Travancore-Cochin State and declared eligible for admission to a Course of study in this University or have passed an examination recognised by the Syndicate as equivalent thereto.

The Course extends over two years. The subjects of study and scheme of examination are as follows:—

Part I—English (Prose, Poetry and Composition)

Part II—A Second Language.

(*Note*.—Papers under Parts I and II of the Examination are the same as those for Parts I and II of the Intermediate Examination in Arts and Science.)

Part III—The Examination under Part III consists of 6 papers as follows:—

Elements of Commerce (2 papers)
Commercial Geography (1 paper)
Secretariat Practice (1 paper)
Modern Language (1 paper)
Book keeping (1 paper),

A candidate shall be declared to have passed the Intermediate Examination in Commerce if he obtains not less than

- (a) 35 per cent of the marks in Part I
- (b) 35 per cent of the marks in Part II
- (c) 35 per cent of the marks in each division of the Examination in part III

All other candidates shall be declared to have failed in the Examination.

Candidates who pass in all the Parts at the same Examination and who obtain not less than 50 per cent of the total marks shall be placed in the First Class; all the other successful candidates shall be placed in the IIInd Class. Candidates who pass in all the parts at the same examination and obtain not less than 60 per cent of the marks in any subject shall be declared to have gained distinction in that subject. Candidates who pass the whole examination by passing in the several parts at separate examinations shall be placed in the third class.

Bachelor of Commerce

Candidates for the Bachelor of Commerce Degree Examination shall unless exempted by the Syndicate, be required to have passed in the Intermediate Examination in Commerce of this University or an examination accepted by the Syndicate as equivalent thereto and to have subsequently undergone the prescribed course of study for a period of not less than two academic years in a college of this University.

The subjects of study and scheme of examination are as follows :—

Part I—English—

English Prose,

English Composition,

Precis writing and business correspondence (3 papers)

Part II—Second Language—Composition and Translation
(1 paper)

Part III—The Examination shall consists of 8 papers as follows :—

Economics-General (1 paper)

Business Organisation and Administration (1 paper)

Merchantile Law (1 paper)

Industrial Law (1 paper)

Accountancy (1 paper)

Auditing (1 paper)

Optional Subject (2 papers)

The minimum for a pass is 35 per cent in Part I, 35 per cent in Part II and in Part III, 30 per cent in each division of the Optional group and 35 per cent of the total. Successful candidates getting not less than 60 per cent are placed in the First Class, those obtaining not less than 50 per cent are placed in the II Class and those obtaining less than 50 per cent are placed in the III Class.

Education Reorganisation

The Education Reorgansation Committee appointed by the Government of Travancore to enquire into the existing Educational system in the State and to formulate proposals for its reorganisation with due regard to post-war developments recommended the institution of an entrance examination for admission

to the University. The Senate accepted the recommendations of the Committee and instituted the University Previous examination.

The University Previous examination is open to candidates who have already passed the School Leaving Certificate examination conducted by the Education Department of Travancore or any other examination accepted by the Syndicate as its equivalent. Candidates for the University Previous examination are required to undergo a course of study in the prescribed subjects for a period of not less than one academic year in a Pre-University School recognised by the University. The subjects for the University Previous examination are arranged according to Faculties and candidates are free to choose subjects according to their aptitude and ability.

The First Year of the Three-year Degree Course and the First Examination in Arts, Science and Oriental Studies.

After undergoing this First Year's course and passing the University Previous examination at the end of it, students become eligible for admission into a three years' degree course in one of the Faculties of the University. At the end of the first year of the three years' course, all undergraduates are required to pass the First examination in Arts, Science or Oriental Studies, depending upon the particular Faculty they have joined. Candidates for the First examination in the Faculties are required to offer three groups or units selected from subjects arranged according to Faculties. The standard in all subjects for the First examination in these Faculties is considerably higher than the standard required in the Intermediate Examination in other Indian Universities. The First Examination was held in March 1949. The Final examination was held for the first time in March-April 1951.

FEES

1. Candidates for examinations, diplomas and degrees shall pay the following fees:—

	Rs.
(a) <i>Examination fees:</i>	
University Previous Examination	20
<i>Intermediate Examination:</i>	
First appearance—	
Whole Examination or any part or parts ...	30

Subsequent appearance—

Whole Examination	...	...	...	...	30
Part I only	...	...	...	...	12
Part II only	...	...	...	...	10
Part III only	...	...	...	...	20

For each Science subject under Part III in which a Practical test has been prescribed an additional fee of Rs. 3.

Rs.

B.A. Degree Examination (Two-year Course) :

First appearance—

Whole Examination or any part or parts	...	50
--	-----	----

Subsequent appearance—

Whole Examination	...	...	...	...	50
Part I only	...	...	...	...	22
Part II only	...	...	...	...	12
Part III only	...	...	...	...	28

For each subject under Part III in which a Practical Test has been prescribed an additional fee of:—

Rs.

Main	...	...	...	...	...	5
Subsidiary	...	...	...	...	...	3

B.Sc. Degree Examination (Transitory) :

Part I	...	...	...	...	...	15
Part II	...	...	...	...	...	45

For Practical test under Part II an additional fee of:—

Main	...	...	...	...	...	5
Subsidiary	...	...	...	...	...	3

Three-Year Degree Course :

First Examination in Arts and Science	...	30
---------------------------------------	-----	----

B.A., & B.Sc. Degree Examinations three-year course) :

Whole Examination	...	...	...	...	50
Main Subjects	...	...	...	...	30
Subsidiary Subjects	...	...	...	...	20

For Practical test in Science subjects, an additional fee of:—

Main	...	...	...	...	...	5
Subsidiary	...	...	...	...	...	3

B.A. (Honours) Degree Examination :

Preliminary	...	...	...	...	...	15
Final	...	...	...	...	...	70

E.Sc. (Honours) Degree Examination :

Preliminary	...	...	...	...	...	15
Final	...	...	...	...	...	70

For Practical test in each branch an additional fee of 15

<i>M.A. Degree Examination</i>	70
--------------------------------	-----	-----	-----	-----	----

<i>M.Sc. Degree Examination</i>	70
---------------------------------	-----	-----	-----	-----	----

For Practical test in each branch an additional fee of 15

B.Sc. Honours Degree Examination (Transitory)

For candidates including post-graduate students

Part I	...	...	...	...	...	15
Part II	...	...	...	...	...	75
Subsidiary	...	...	...	...	...	30
Main	...	...	...	...	...	45

For practical test an additional fee of ... 15

<i>B.T. Degree Examination</i>	25
--------------------------------	-----	-----	-----	-----	----

<i>F.L. Examination</i>	50
-------------------------	-----	-----	-----	-----	----

<i>B.L. Degree Examination</i>	70
--------------------------------	-----	-----	-----	-----	----

<i>M.L. Degree Examination</i>	150
--------------------------------	-----	-----	-----	-----	-----

<i>First Examination in Engineering Part I</i>	30
--	-----	-----	----

<i>Do.</i>	<i>Do.</i>	<i>Part II</i>	...	30
------------	------------	----------------	-----	----

<i>B.Sc. Degree Examination in Engineering Part I</i>	...	45
---	-----	----

<i>Do.</i>	<i>Do.</i>	<i>Part II</i>	60
------------	------------	----------------	-----	-----	----

<i>Diploma Examination in Engineering Part I</i>	...	40
--	-----	----

<i>Do</i>	<i>Do.</i>	<i>Part II</i>	35
-----------	------------	----------------	-----	-----	----

<i>First Year Diploma Examination in Engineering</i>	...	25
--	-----	----

<i>Second Year Diploam Examination in Engineering</i>	...	30
---	-----	----

<i>Third Year Diploma Examination in Engineering</i>	...	35
--	-----	----

Note.—The fee payable by a candidate who appears for one group only of any of the examinations in Engineering will be one half the full fee for the corresponding examinations. However no examination fee need be paid by a candidate who appears for sessional work group only.

	Rs.
<i>First Examination in Textile Manufacture or Textile Chemistry</i>	20
<i>Diploma Examination in Textile Manufacture or Textile Chemistry</i>	25
<i>B.Com. Degree Examination :</i>	
Part I	15
Part II	7
Part III	38
<i>Diploma Examination in Forestry</i>	50
<i>Diploma Examination in Shorthand and Typewriting :</i>	
Preliminary	10
Final	15
<i>Oriental Titles :</i>	
Sanskrit Entrance	10
<i>Mahopadhyaya :</i>	
Preliminary	15
Final	15
<i>Sahityavisarada</i>	15
<i>Vidvan-Tamil</i>	15
<i>Vidvan-Hindi :</i>	
Entrance	10
Preliminary	10
Final	15
<i>(b) Degree or Diploma Fee :</i>	
Diploma fee (for taking Degree at a Convocation in person)	3
Degree in absentia fee (including Diploma fee)	10
Fee for taking Diploma at Senate in person	3

Fee for taking Diploma at Senate in absentia ...	5
M.A. Degree fee	25
M.Sc. Degree fee	25
M.L. Degree fee	25
Ph.D. Degree fee... ..	40

Rs.

(c) *Fees for the submission of theses for Research Degrees :*

M.Litt.	150
M.Sc. Degree	150
Ph.D.	200
D.Sc.	200
D.Litt.	200
LL.D.	300

provided that no fees shall be levied in the case of Honorary degrees.

(d) *Other Fees :*

Rs.

I. For Registration as a Matriculate ...	5
II. (i) For considering application for exemption from the provisions of the Ordinance relating to the production of attendance certificate, minimum qualification for admission to courses of study or examination, etc.	10
(ii) For considering applications from <i>bona fide</i> teachers for exemption from the production of attendance certificate	10
(iii) For combination of attendance earned in two colleges... ..	5
(iv) For considering application for recognition of an examination of another University or an examination conducted by other bodies outside the jurisdiction of the University	5
(v) For considering application for recognition of change of name	10
(vi) For obtaining a duplicate Diploma or Certificate	10
(vii) For obtaining a provisional certificate ...	5
(viii) For application for Intermediate of University Previous Certificate received by the Registrar after the prescribed date ...	3

	Rs.
(ix) For obtaining a Migration Certificate ...	5
(x) For obtaining a duplicate copy of the Migration Certificate	5
(xi) For issue of a certificate extract from the Register or Records of the University ...	5
(xii) For supplying marks to a candidate obtained at any examination other than the B.A./B.Sc. Degree Examinations... ..	2
(xiii) For supplying marks to a candidate obtained at the B.A. & B.Sc. Degree Examinations for each part	2
(xiv) For supplying marks to a candidate obtained at the Intermediate or University Previous Examination	2
(xv) For supplying detailed marks to a candidate obtained at Examinations for the details of each subject comprising a minimum (additional fee)	1
(xvi) For checking the addition of marks in each paper of a candidate for any University Examination (for each paper) ...	5
(xvii) For late receipt of applications for admission to Examinations received within a period of 5 days after the prescribed dates	1
(xviii) For supplying to Principals marks of all the successful candidates at the Intermediate or the University Previous Examination (for each Examination of the year)	20
(xix) For supplying to Principals marks of all candidates (passed and failed) from a particular college for the B.A., B.Sc. B.A. (Hons.), B.Sc. (Hons.), F.L., B.L., B.T. or any other Examination.	Annas 8 per candidate subject to a maximum of Rs. 10 for an Examination for every 50 candidates or less.
(xx) For supplying to Principals of Colleges detailed marks in each subject comprising a minimum (for each candidate)	1

Application for permission to open new colleges with a view to admission to the privileges of the University shall be sent to the Registrar so as to be received by him not later than the last

day of Chingom preceding the academic year in which the courses of study are proposed to be started. If the Syndicate decides to proceed with the application it shall direct a local enquiry to be made by a competent person or persons appointed by it for the purpose. The applicant shall pay to the University a fee calculated at the rate of Rs. 100 for each member of the Inspection Commission or Commissions appointed by the Syndicate.

Tuition Fees

Intermediate Course	...	Rs. eighty-four	Rs. 28	Rs. 14
		and Rs. 42 for Parts I, II		and III respectively.
B.A., & B.Sc., (Pass) and Hons. course and Post-graduate course and M.Sc.		Rs. one hundred and eight		(Rs. 36, Rs. 18 and Rs. 54 for Parts I, II and III, respectively for the Pass Course.)
Post-Graduate Research Course		Rs. fifteen per term for Chemistry, Botany and Zoology and Physics, and		Rs. ten for other subjects.
Special practical work for failed students of the B.Sc. Class		Rs. twenty-seven per term.		

Laboratory Fees

					Rs.
(i) Intermediate Course :					
Mathematics, Physics and Chemistry	...				5
Physics, Chemistry and Biology	...				7
(ii) B.Sc. Course :					
All groups except Mathematics	...				10
(iii) M.Sc. Course (per term)					
Library Fee	...	...	...	...	15
Athletic Fee	...	...	...	...	2
Men	...	...	...	...	4
Women	...	...	...	...	2
Stationery Fee	...	...	...	...	1
Health Service Fee	...	...	...	...	1
Magazine and Association	...	...	...	...	2

B.L. Course :

The tuition fee is Rs. 160 per year for the B.L. class and F.L. Class.

Engineering Course :

Class				Fees
Degree ...	...	...	...	Tuition fee of Rs. 200 per annum, stationery fee of Rs. 6
Diploma ...	...	...	...	Tuition fees of Rs. 80 per annum, stationery fee of Rs. 4 per annum.
Certificate ...	...	...	...	Rs. 8 per annum.

Athletic and Library fees at the rate of Rs. 5 and Rs. 2 respectively per annum will be levied from each student in the Degree and Diploma Classes.

B.T. Course : The tuition fee is Rs. 150 per academic year.

Athletic Fees

Men	...	...	...	...	Rs. 4 per year.
Women	...	...	...	...	Rs. 2 per year.
Manual Training Fee	...	...	...	...	Re. 1 per year.

UTKAL UNIVERSITY

Introductory Character of the University

With the creation of Orissa as a separate Province in 1936, the popular desire for a University for the Province was widely expressed and Committees were appointed by the Local Government to report on the establishment of a University. The first (official) Committee was appointed on the 14th April, 1937 and the Second Committee on the 2nd March, 1938. The Utkal University Act was passed by the Orissa Legislature on the 30th June, 1943 and the University was inaugurated on the 2nd of August, 1943.

Constitution of the University

The authorities of the University are :—

The Senate, the Syndicate, the Academic Council and the Matriculation Board.

Other Statutory bodies of the University are the Boards of Studies and the Faculties.

The Senate is the Supreme Governing Body of the University with powers of legislation. The Syndicate is the Executive Body and the Academic Council prescribes all courses of studies and curricula and advises the Senate and the Syndicate on all academic matters. The Boards of Studies consider the report on any matter which is referred to them by the Syndicate or the Academic Council and in particular recommend to the Syndicate on text books, syllabi for the University Courses of Studies and also assist the Syndicate in recommending persons fit to be question paper-setters and examiners for the University examinations. The Faculties consist of different departments of teaching with persons expert in their subjects and they report on any matter that is referred to them by the Senate or the Syndicate or the Academic Council.

Officers of the University

Chancellor

... Shri Saiyid Fazl Ali, Bar-at-Law,
Governor of Orissa.

Pro-Chancellor	...	Dr. P. Parija, O.B.E., D.Sc., M.A. (Cantab.), I.E.S. (Retd.), F.N.I., M.L.A.
Vice-Chancellor	...	Lt-Col. Dr. P. Misra, M.Sc. (Cal.), Ph.D. (Leeds.)
Registrar	...	Shri G. C. Rath, M.A., Dip-in-L-Sc.
Assistant Registrar	...	Shri D. P. Barai, M.A., Dip-in-Edn.

Deans of Faculties

Faculty of Arts	...	Rai Bahadur Arta Ballav Mohanty, M.A.
Faculty of Science	...	Dr. B. Prasad, D.Sc. (London.)
Faculty of Law	...	Shri C. M. Acharyya, M.A., LL.B.
Faculty of Education	...	Shri B. N. Rath, M.A. (London.)
Faculty of Medicine	...	Lt.-Col. P. Papatla, B.A. (Madras), M.B.B.S. (Madras), D.O.M.S., D.L.O. (London), D.P.H. (London), F.R.C.S.E.
Faculty of Commerce	...	Dr. S. Misra, M.A., Ph.D. (London.)

Affiliated College

There are at present 16 Colleges affiliated to this University and one College, namely, the Madhusudan Law College of the Utkal University is under the direct control and management of the University.

(A) College teaching upto Post-Graduate Standard in Arts and Science.

1. Ravenshaw College, Cuttack.

Principal	Dr. G. B. Banerjea, M.Sc., Ph.D. (London.)
-----------	-----	-----	--

(B) Colleges teaching up to Degree Standard in Arts, Science and Commerce.

- Gangadhar Meher College, Sambalpur. Arts and Commerce up to degree standard and Science up to Intermediate.

Principal	Dr. M. Mansinha, M.A., Ph.D. (Durham)
-----------	-----	-----	---------------------------------------
- Fakir Mohan College, Balasore. Arts-Degree stage. Science-Intermediate stage.

Principal	Dr. D. Misra, M.A. (Columbia), Ph.D.
-----------	-----	-----	--------------------------------------

3. Samanta Chandra Sekhar College, Puri. Arts—Degree stage. Science—Intermediate stage.
Principal ... Mr. B. C. Das, B.A. (London.)
4. S. K. C. Gajapati College, Parlakimedi (Ganjam.) Arts—Degree stage. Science—Intermediate stage.
Principal ... Sardar Gurdeal Singh, M.A. (Cantab.)
5. Shailabala Women's College, Cuttack. Arts—Degree stage
Principal ... Mrs. I. L. Sinha, M.A. (London.)
6. Rajendra College, Bolangir. Arts—Degree stage. Commerce—Intermediate stage.
Principal ... Vacant.
7. Christ College, Cuttack Arts—Degree stage.
Principal ... Mr. B. Mohanty, M.A., B.L.
8. Khallikote College, Berhampur. Arts and Science—Degree stage.
Principal ... Mr. Narasingo Padhi, M.A., L.T.
9. Maharaja Purna Chandra College, Baripada. Arts—Degree stage. Science—Intermediate stage.
Principal ... Mr. J. Mohanty, M.A.
10. Bhadrak College, Bhadrak. Arts—Degree stage.
Principal ... Mr. A. K. Nandi, M.A.

(C) Colleges teaching up to Intermediate Standard in Arts and/or Science.

1. Stewart Science College, Cuttack. Science
Principal ... Rev. E. G. Collins, B.D. (Hons.), T.C. (Cantab.)
2. Narsing Chaudhury College, Jajpur. Arts.
Principal ... Mr. K. B. Patnaik, M.A., B.L.
3. Vikram Dev College, Jeypore. Arts and Science.
Principal ... Dr. D. Patnaik, M.Sc., Ph.D. (Cantab.)

(D) *Professional and Training Colleges.*

1. Radhanath Training ... Diploma in Education.
College, Cuttack.
Principal ... Mr. B. N. Rath, M.A. (London.)
2. Sriram Chandra Bhanj ... M.B.B.S.
Medical College,
Cuttack.
Principal ... Dr. S. C. Das, M.B., Ph.D.,
F.R.C.S.E.
3. Madhusudan Law Col... LL.B.
lege of the Utkal
University, Cuttack.
University Professor of Mr. K. Satyanarayana Murthy,
Law. B.A, M.L.

(E) Besides the above the University has introduced a Diploma Course in Modern European Languages (French and German) with effect from the session 1949-50. The Diploma course extends over a period of two years and minimum qualification for admission is Pass in Intermediate-examination of this University or of other Universities recognised by this University as equivalent thereto. A Diploma is granted to successful candidates.

Provision has also been made by the University for introducing Certificate Course in French and German Languages with effect from the commencement of the session 1953-54. Duration of the course will be for one year and the candidates passing the examination will be awarded a Certificate.

Strength in Colleges

	Students		Total
	Men.	Women	
(a) In all colleges (except Professional and Training Colleges ...	4792	419	5211
(b) In professional and Training Colleges :—			
(i) S. C. B. Medical College, Cuttack ...	211	33	244
(ii) Radhanath Training College, Cuttack ...	84	11	95
(iii) Madhusudan Law College of the Utkal University Cuttack	473	5	478
Grand total of students in all colleges ...	5560	468	6028

Control of the University over the Affiliated Colleges

The University exercises control over the appointment of teachers, their conditions of service, suitability and adequacy of accommodation and equipment for teaching, the character, qualification and adequacy of teaching staff and the residence, physical welfare, discipline and supervision of students in the Affiliated Colleges.

Admission to the University

Admission to the University courses of studies (Intermediate) are open to the students who have passed the examinations named below:—

1. Matriculation Examinations conducted by all the Statutory Universities in India.
2. High School Certificate examination conducted by the Board of Secondary Education, Madhya Pradesh, Nagpur.
3. High School examination of the Central Board of Secondary Education, Ajmer.
4. S.S.L.C. examination of the Board of Secondary Education, Mysore.
5. Secondary School Certificate examination of the Board of Secondary Education, Bombay, Poona.
6. High School examination of the Board of High School and Intermediate Education, U. P., Allahabad.
7. English School Leaving Certificate Examination (the Pass Certificate of which is counter-signed by the Director of Public Instruction) of the E.S.L.C. Board of the Government of Travancore-Cochin.
8. School Final Examination of the Board of Secondary Education. West Bengal, Calcutta.
9. Cambridge School Certificate Examination (Senior Cambridge.)
10. Senior School Certificate Examination of the Government of Ceylon.
11. Indian Army Special Certificate examination.
12. Indian Air Force Matriculation Test.
13. Higher Educational Test of the Royal Indian Navy.
14. Vidya Vinodini Examination with Advanced English and Mathematics of the Prayaga Mahila Vidya Pitha, Allahabad.
15. High School Examination conducted by the Board of Secondary and Intermediate Education, Madhya Bharat, Gwalior.

The University Press

On the 1st January 1949, His Highness the Maharaja of Mayurbhanj made a gift of the Mayurbhanj State Press together with the buildings etc. to the University, the approximate value of which is estimated to be more than three lacs of rupees. This benevolence of H. H. the Maharaja Saheb removed a great and essential want of the University.

For better facility and management of work, the Press has been shifted to Cuttack from Baripada and has been installed in a building at Tulsipur situated at the western extremity of the Cuttack Town on the bank of the Kathjori River.

The management of the Press is under a Committee constituted by the Syndicate for the purpose. To perpetuate the memory of the late revered father of the present Maharaja Saheb, the Press has been named as "The Maharaja Sri Ram Chandra Utkal University Press, Cuttack."

University Publications

Syllabus and courses of studies, calendars, text-books and unpublished books in Oriya language and literature recommended for publication by the Oriya Language Improvement Committee.

Finance

Financial Statement showing incomes of Utkal University from various sources during 1951-52.

Heads	Amounts
	Rs. a. p.
1. <i>Government grants:</i>	
(A) <i>State Government of Orissa:</i>	
(i) Recurring (Block Grant)	20,000 0 0
(ii) Non-recurring (for construction of Law College buildings)	20,000 0 0
(B) <i>Central Government:</i>	
(i) Recurring	Nil
(ii) Non-recurring (for research training facility in Chemistry)	25,000 0 0

Heads	Amount		
	Rs.	A.	P.
2. Fees :			
(i) Examination fees and centre charges ...	4,59,172	8	0
(ii) Other fees (marks, Certificates, registration etc.)	42,993	1	6
(iii) Tuition fees, etc., from teaching departments of Law College and French and German Classes	82,300	4	0
(iv) Other sources	81,487	7	1
3. Endowments	*31,781	13	0
4. Donations	45,713	5	0

General

As the number of candidates from Orissa preparing for the I. A. S. examinations etc., conducted by the Union Public Service Commission and for the O. A. S. examination conducted by the Orissa Public Service Commission are increasing year to year, the Syndicate of the Utkal University decided to start coaching class to help and guide the examinees for the said examinations.

In accordance with the rules embodied in the scheme in question the duration of the coaching class is to be four months, the tuition fee being fixed at Rs. 20 per month per student.

* Interest realised on investments and house-rents.

VISVA-BHARATI

Santiniketan

Postal Address Santiniketan, District Birbhum,
West Bengal.
Telegraphic Address ... Visvabharati, Santiniketan.
Telephone: BOLPUR 21 and 22.

Dates of Establishment and Incorporation: The University was established in 1921 and incorporated in 1951 as a Central University by Act XXIX of 1951 of the Indian Parliament.

Founded by Rabindranath Tagore

Chancellor: Jawaharlal Nehru
Vice-Chancellor Rathindranath Tagore

Aims and Objects: To study the mind of Man in its realization of different aspects of truth from diverse points of view.

To bring into more intimate relation with one another, through patient study and research, the different cultures of the East on the basis of their underlying unity.

To approach the West from the standpoint of such a unity of the life and thought of Asia.

To seek to realize in a common fellowship of study the meeting of the East and the West, and thus ultimately to strengthen the fundamental conditions of world peace through the establishment of free communication of ideas between the two hemispheres.

And with such ideals in view to provide at Santiniketan a Centre of Culture where research into and study of the religion, literature history, science and art of Hindu, Buddhist, Jain, Islamic, Sikh, Christian and other civilizations may be pursued along with the culture of the West, with that simplicity in externals which is necessary for true spiritual realization, in amity, good fellowship and co-operation between the thinkers and scholars of both Eastern and Western countries, free from all antagonisms of race, nationality, creed or caste.

Introduction: Visva-Bharati grew out of Santiniketan Asrama founded by the Poet's father, Maharshi Devendranath in 1863. The Asrama was meant to be a retreat where seekers after Truth might come and meditate in peace and seclusion. In 1901 an experimental school was started at Santiniketan by Rabindranath Tagore with the object of providing for a limited number of children of the new generation an education which would not be divorced from Nature, where the pupils could feel themselves to be members of a large community and where they could learn and grow in an atmosphere of freedom, mutual trust and joy. Since 1921 Santiniketan has been the seat of Visva-Bharati, an international university seeking to develop a basis on which the cultures of the East and the West may meet in common fellowship. Visva-Bharati has recently been incorporated as a University by Act XXIX (1951) of the Indian Parliament.

Visva-Bharati is an all-India institution with students and teachers drawn from all over India and there is always a fair mingling of teachers, students and visitors from abroad. Students live a community life, dining in the same Halls (with separate arrangements for vegetarians and non-vegetarians), playing in the same spacious play-grounds close to the hostels, organizing common socials, picnics, excursions, literary and musical entertainments.

Visvabharati Central Library contains above 1,00,900 volumes. There are sectional libraries attached to various departments. The University has its own Hospital with a Medical Officer and his assistants. There are also spacious sick-rooms attached to the girls' hostel, attended by the Medical Officer and equipped with adequate nursing facilities. Boys have separate hostels attached to various departments, while all girl pupils have a common hostel called Sri Sadana. The University has its own supply of electricity and water. The Guest House, which makes catering arrangements of its own, is open to visitors and guardians.

Santiniketan, a quiet spot in the midst of open country, is situated about 100 miles from Calcutta. The climate is one of the healthiest in West Bengal. Average annual rainfall 50". Railway Station: *Bolpur (Santiniketan)* on the Sahebganj Loop Line of the Eastern Railway. The School Bus attends all important trains.

Besides the academic institutions mentioned below, the University conducts two Departments: one for Rural Reconstruction and the other for Publication of Books of educational and cultural interest. The Palli-Samgathana Vibhaga (Rural Reconstruction Institute) at Sriniketan is concerned mainly with a comprehensive study of the problems of rural life in its social, cultural, economic and other aspects and extension work in the villages on the basis of such a study. The Institute maintains a Model Primary School for rural children, a Teachers' Training school for serving primary education in rural areas as well as an agency for propagation of folk education and social education. There is a section for rural industries where training is provided to apprentices in a variety of crafts.

Colleges and Institutions. Visva-Bharati maintains the following Colleges and Institutions which are all co-educational and residential:

Patha-Bhavna (School Section) provides instruction for Matriculation Examination. Close personal contact with the teacher, the influence of Nature and environment, the atmosphere of freedom and joy, the practical training given in co-operation and self-government, the effort made to develop the self-expressive side of the child-mind through social, literary and artistic activities, supervision of physical activities and organization of excursions are some of the special features of the School. Medium of instruction: Bengali. Minimum age-limit is 6 for admission to the lowest Group (9 years below Matric) and the upper age-limit is 12.

Siksha-Bhavana (College Section) provides instruction for I. A. and I. Sc. examinations and the degree of B.A. Pass and Honours. Honours subjects: English; Economics; History; Philosophy; Sanskrit; Bengali; and Hindi. Close personal attention and tutorial help, emphasis on social, cultural, literary and other extra-curricular activities are some of the distinguishing features of the College. The medium of instruction in the College as also in the following senior sections is English.

Vidya-Bhavana (College of Post-graduate Studies and Research) is mainly concerned with Indological Studies—studies in Vedic, Puranic, Buddhist, Jain, Zoroastrian and Islamic cultures and in major languages and literatures of India. It offers a two-year Degree Course for Ph.D. in any subject in which instruction is provided. It also offers a two-year M.A. Course, at present in the following subjects:

(a) Ancient Indian History and Culture; (b) Sanskrit Literature; (c) Bengali Language and Literature; (d) Hindi Language and Literature; (e) Oriya Language and Literature; and (f) Urdu Language and Literature. Honours graduates of recognized Universities are ordinarily admitted to the M.A. Course. Pass graduates of recognized Universities are also admitted as a special case on passing an admission test. M.A. Courses consist of lectures, seminar work as well as training in the methodology of higher studies and research.

Vinaya-Bhavana (College of Teaching) provides instruction for the Degree of B.T., the Course being for one year. A special feature is training given in crafts and other creative activities in addition to theoretical subjects. A three-month Certificate Course in Activity Education is also available. Persons with B.T. Degree of Visva-Bharati, graduates with recognized training in Basic Education or with at least three years' experience in Basic Education, or holders of recognized diploma in Arts or Crafts are eligible for admission to this short Course.

Cheena-Bhavana (Institute of Sino-Indian Studies and Research) seeks to revive the old cultural links between India and China. Sinology and Tibetan Studies form the main interest of this Section. It provides for a two-year Course for a Certificate of Proficiency in Chinese followed by a three-year Diploma Course in the same language. The Courses are open to students of post-graduate and undergraduate classes of Visva-Bharati, Staff-members of Visva-Bharati, students preparing for the Foreign and Defence Services or any other person recommended by the Principal of a constituent college of Visva-Bharati.

Kala-Bhavana (College of Fine Arts and Crafts), which has developed into a well-known centre of Indian Art, owes its inspiration to the artistic renaissance in Bengal under the guiding spirit of Acharya Abanindranath Tagore. Training is provided in Drawing, Painting, Modelling, Sculpture, Etching, Wood-and Lino-cut, Fresco-painting, *Alpana* and Design-drawing, embroidery, Batique and Artistic Leather-work. It maintains a museum, a library and an exhibition hall.

Sangita-Bhavana (College of Music and Dance) imparts training in Indian Music, classical and modern, vocal as well as instrumental. An attractive feature is the facility that exists for learning the songs of Rabindranath Tagore. A systematic study is made here of Northern (Manipuri) and Southern (Kathakali)

styles of Dance with a view to correlating them into a rich synthesis and so to evolve a new cultural expression through the Dance-Drama.

Both *Kala-Bhavana* and *Sangita-Bhavana* offer four-year Degree Courses to Matriculates only. Non-matriculates are accepted for admission to Diploma Courses provided they pass an admission test conducted by the Principal of the Bhavana concerned. Both the Bhavanas provide also for a one-year Certificate Course in a specific subject included in the programme of studies of the Bhavana concerned.

Hindi-Bhavana (Institute of Hindi Studies and Research) organizes teaching of Hindi in the other constituent institutions in addition to undertaking original research in Hindi Language and Literature.

Fees, admission etc.: The annual fees are Rs. 300 and are inclusive of charges for tuition, medical help, sports and library, light, as well as accommodation and supervision in a hostel. Refectory charges are Rs. 45 (for four meals a day) per month during term time only. The students have to pay an admission fee of about Rs. 25. Those migrating from other Universities have to pay besides an enrolment fee of Rs. 5 only. Students from other Universities are required to produce a certificate of migration for admission to any College or Institution under Visva-Bharati.

A privilege open to students of Visva-Bharati is that a student joining any of the departments may (without having to pay extra fees) attend classes or courses in any other department for which he shows a marked aptitude, provided the time-table permits and the department concerned can make arrangements.

Terms and holidays: The academic session for the senior departments commences from July. The School session begins in January. The terms are July to October with a month's break for autumn recess and November to April followed by a summer vacation of two months. The University examinations are usually held at the end of April.

Prospectus: Detailed prospectus and application forms for admission to the different constituent Colleges and Institutions will be available from the Principal concerned (Re. 1 each.)

A application form for admission is supplied free of cost.

Principal Officers and Heads of Colleges and Institutions :

Chancellor	...	Jawaharlal Nehru.
Vice-Chancellor	...	Rathindranath Tagore, B.Sc. (Illinois)
Treasurer	...	Nripendra Chandra Mitra
Registrar	...	Nishikanta Sen, M.A.
Assistant Registrars	...	Kshitish Roy, M.A.
Principal, Vidya-Bhavana		Saileschandra Chakravarty, M.Sc. Dr. Prabodhchandra Bagchi, M.A., Dr.-es-lettres (Paris)
Principal, Siksha-Bhavana		Hirendranath Datta, M.A.
Principal, Patha-Bhavana		Gopal K. Chatterji, M.Ed.
Principal, Vinaya-Bhavana		Kulada Prasad Chaudhuri, M.A. M Ed. (London.).
Principal, Cheena-Bhavana		Tan Yun-Shan.
Principal, Kala-Bhavana		Surendranath Kar.
Principal, Sangit-Bhavana		Sailjaranjan Majumdar, M.Sc.
Principal, Hindi-Bhavana (Offg.)		Mohanlal Bajpai, M.A.
Director, Palli-Samgathana Vibhaga.		Dhirananda Roy.
Director, Granthana Vibhaga.		Charuchandra Bhattacharya, M.A.

Buildings etc.: The main buildings of the University comprise the Central Library, Vidya-Bhavana, Kala-Bhavana, Sangit-Bhavana, the School, Vinaya-Bhavana, Siksha-Bhavana, Rural Reconstruction Institute buildings at Sriniketan, Hindi-Bhavana, Cheena-Bhavana, Dinabandhu-Bhavana, Ratan Kuthi Guest House and the New Guest House, the Laboratory, the Refectory, the newly built Stage, Sinha-Sadana Lecture Hall, Students Hostels including Sri-Sadana (Girls' Hostel), Karma-Sachiva's Offices, Vinaya-Bhavana Colony buildings, Staff Quarters at Santiniketan, Sriniketan and Vinaya Palli, etc. An Agricultural Farm is attached to the Rural Reconstruction Department.

Open-air classes are one of the distinguishing features of the University.

The University area comprises about 11.5 square miles.

The University authorities: The *Samsad*, (Court), the supreme governing body of the University; the *Karma-Samiti*

(Executive Council), the University executive body; the *Siksha-Samiti* (Academic Council), which deals with academic matters only.

Appointments: All appointments are made, subject to general control of the *Samsad* (Court), by the *Karma-Samiti* (Executive Council) on the recommendation of a Selection Committee including the Vice-Chancellor and the Principals of the College concerned.

Libraries: The Central Library contains about 100,900 volumes. There are, Seminar and Libraries attached to various departments.

The University Press: The University has its own Press at Santiniketan which prints various publications under the imprimatur of Visva-Bharati.

Publications: The University has a Publication Department (Granthana-Vibhaga) of its own with headquarters in Calcutta. This Department owns the copyright of the Bengali works of the Poet. The publications brought out by the Department cover a wide range and may be classified as follows: (i) Writings of Rabindranath Tagore including a serial publication of his complete works edited with annotations; (ii) Series of books for folk education; (iii) Series of general knowledge books; (iv) Research publications under the auspices of Vidya-Bhavana Research Department (v) Juvenile books including text-books for school use; (vi) University bulletins and informative Pamphlets, etc.

There is a monthly news-bulletin entitled *Visva-Bharati News* (Founded 1932) which contains news of the University and activities at Santiniketan.

Visva-Bharati has two cultural organs, *Visva-Bharati Quarterly* (Founded 1923 by Rabindranath Tagore) in English and *Visva-Bharati Patrika* in Bengali. *Visva-Bharati Quarterly* has appreciative readers all over the world and is well-known for its Special Numbers. Annual subscription for the *Quarterly*: Rs. 8 ; 3 dollars 14 shillings.

APPENDIX

I.—BHANDARKAR ORIENTAL RESEARCH INSTITUTE, POONA-4.

1. History.—The idea of establishing an Oriental Institute offering facilities to research workers and at the same time commemorating the work and the name of the late Sir Ramakrishna Gopal Bhandarkar originated towards the middle of 1915. The scheme was received enthusiastically and with public support, Government sympathy, and chiefly the noble aid rendered by the Tatas and the Jain Community, the scheme soon materialised and the Institute was formally inaugurated by His Excellency Lord Willingdon, the then Governor of Bombay, on the 6th of July 1917, the 80th Birthday of Sir Ramakrishna, when a volume of commemorative essays written for the occasion by several Indian and European Scholars was also presented to him. The Institute began its work in June 1918 when the Government of Bombay were pleased to transfer to the Institute the Manuscripts library formerly at the Deccan College (together with the annual maintenance grant of Rs. 3,000) as also to hand over to the Institute the management of the Bombay Sanskrit and Prakrit Series together with a yearly grant of Rs. 12,000 set aside for that purpose. The Main Hall of the building named "The Jain Tata Research Hall" was occupied in 1918 and the two side halls, named "The Khetsi Khiasi Manuscripts Hall" and the "Ratan Tata Iranian and Semitic Hall" were occupied in 1922. The total expense on the whole building has been Rs. 1,50,000. The "Press and the Stock Room" for stocking the entire stock of Institute's publications as also the Institute's Press was constructed in 1933 at a cost of about Rs. 35,000 while the Nizam's Guest House was constructed in this very year at a cost of about Rs. 35,000 donated by the Government of His Exalted Highness the Nizam of Hyderabad. The Guest House has been fully equipped for the use of Scholars visiting the Institute from outside for purposes of study.

2. Work.—(i) The Mahabharata Department has been engaged in bringing out a Critical Edition of the Great Epic of India since 1919. The Edition has been universally acknowledged as a monumental work of scholarship. In 1939 the British Academy, London, expressed its appreciation of this Edition by the award of a token grant to the Institute. This work has

also been appreciated by learned bodies of status and standing like the International Congress of Orientalists, the All-India Oriental Conference, etc. Eight volumes of this Edition have been so far published. Parts of the Edition are not sold singly. For forms of subscription (which can be paid in lump or by instalments) apply to the Secretary, Mahabharata Editorial Board. The First General Editor of the Mahabharata was Prof. N. B. Utgikar from 1919—1924. The Second General Editor who for the first time fixed the principles of textual criticism for this edition was Dr. V. S. Sukthankar from 1925 up to his sad demise on 21st January 1943. Subsequently Dr. S. K. Belbalkar was appointed General Editor, who is now looking after this work for the last nine years.

(ii) **Manuscript Department.**—The Manuscript Department looks after the management of the Government Manuscripts Library which has been attached to the Institute by the Government of Bombay in 1918. This library contains about 20,000 Sanskrit and Prakrit Manuscripts which are lent to *bonafide* scholars all over the world under certain conditions. These Manuscripts were collected for Government by Buhler, Kielhorn Bhandarkar, Peterson, Kathawate, Pathak and others since 1866, and they form one of the largest and most valuable collections of Hindu and Jain Manuscripts, a collection which is being properly catalogued and looked after by the Institute. Up to now fourteen volumes of the Descriptive Catalogues of these manuscripts are published. Besides the Government MSS. library, the Manuscript Department has been building up steadily a collection of manuscripts of the Institute itself during the last 30 years. So far about 2,300 Manuscripts have been acquired for this collection.

(iii) The Iranian and Semitic Department was created in 1920 for the collection and preservation of the Avesta, Pehalvi, Persian and Arabic Manuscripts. A number of old and rare manuscripts has been already collected and a library of printed books pertaining to these subjects is also being built up gradually.

(iv) The Publication Department, besides conducting the work of the Bombay Sanskrit and Prakrit Series has started a new series called the Government Oriental Series, which includes texts as well as independent original works. Amongst the important publications in this Series mention may be made of 'The Collected Works of Sir R. G. Bhandarkar' (4 volumes, a Complete Word-index to the Vyakarana-Mahabhasya, History

of Hindu Dharmasastra, Vols. I, II and III by Mahamahopadhyaya Dr. P. V. Kane, Ghate's Vedanta, the Jinaratnakosa or the Catalogus Catalogorum of all Jain Manuscriptts by Prof. H. D. Velankar. A complete list of the publications (over 100) can be had on application. The Institute has started another Series called the Bhandarkar Oriental Series in which seven works have been so far published. Among these works Dr. B. C. Law's Tribes in Ancient India and Dr. Bhadur's Studies in Nyayavaishika Metaphysics are noteworthy.

(v) The Journal Department looks to the conduct of the ANNALS of the Institute which was started as a six-monthly publication in 1919 and is now published quarterly. Members of the Institute obtain the Annals free of cost. To others the annual subscription is Rs. 10. So far 31 volumes of the Annals have been published and an Index of articles and authors for volumes I to XX of the Annals was published six years ago. Copies of this Index are available for sale.

(vi) The Library Department looks after the entire collection of printed books and journals belonging to the Institute. The private collection of the late Sir R. G. Bhandarkar was transferred to the Institute in 1925, and consists of over 2,500 old and rare volumes on Indology. Books from this library cannot be lent out but are available to the Members at the Institute for purposes of study and reference. The Institute also purchases and receives as presents some new books regularly each year, as also a number of learned periodicals of India, Europe and America in exchange for the Institute's ANNALS. Books are also issued to members under certain conditions. For the use of members a Reading Room of Select Oriental Journals, Indian and Foreign, is being built up and brought up-to-date. Some years ago the Government of China presented to the Institute a complete set of Chinese *TRIPITAKA* consisting of about 80 volumes and the Government of France presented a number of books on French Literature.

(vii) Post-graduate Instruction and Research Department was started in 1927 for the benefit of M.A. students in Sanskrit, Pali, Ardhamagadhi and Ancient Indian Culture. Subsequently the University of Bombay organised its own Post-graduate Department with a special Committee in Poona to look after the entire Post-graduate work carried on in the institutions at Poona. The Institute fully co-operated in the scheme of post-graduate instruction organised by the Committee during its tenure of

office. In 1948, the University of Poona came into existence and this Department of the Institute was recognized as a constituent Institution of that University for the post-graduate instruction and Research in Sanskrit and Prakrit Languages and Ancient Indian Culture. The following is the staff in the Department :—

Director :

Prof. R. D. Karmarkar, M.A. Head of the Department of Sanskrit.

Staff :

Prof. P. K. Gode, M.A. ... Head of the Department of Ancient Indian Culture.

Prof. S. K. Dikshit, M.A.

The duration of the M.A. Course is 2 years while that of the Ph.D. course is 3 years after B.A. and 2 years after M.A. The total number of students stands at 5 only. These students receive stipends from the Institute as also from the Poona University. The total income of the Department for the year ending 31st March 1952 was Rs. 13,290-12-8 while the total expenditure was Rs. 10,506-15-6. The total income includes grants from Government of India (Rs. 1,200) and Bombay Government (Rs. 3,000) as also from the Poona University (Rs. 3,896.)

Hon. Secretary : Dr. R. N. Dandekar, M.A., Ph.D.

Curator : Prof. P. K. Gode, M.A.

BOSE RESEARCH INSTITUTE

The Bose Research Institute was founded on November 30, 1917 by Sir J. C. Bose for the ' fuller investigations of the many ever opening problems of the nascent science which includes both Life and Non-Life. In particular investigations were to be undertaken on different aspects of plant life, with a view to the discovery of the fundamental unity in life processes underlying the diversity of their manifestations in plants and animals. The scope of investigations undertaken in the Institute has subsequently been enlarged.

The Institute is registered under Act XXI of 1860 and its properties are vested in a Board of Trustees called the Governing Body. The affairs of the Institute are managed by a Council containing representatives of the Trustees and of the Parliament and nominees of the Central Government, including outside scientists.

The Institute is maintained from (i) income derived from the invested funds of the Institute, (ii) a recurring grant from the Central Government and (iii) grants from research supporting organisations and industrial firms for specific, pure or applied, investigations.

Besides the main laboratories and workshops of the Institute situated at 93-1 Upper Circular Road, Calcutta-9, the Institute maintains one Experimental Station at Falta in 24-Parganas, and the Baccharaj Laboratory at Mayapuri, Acharya Jagadish Chandra Road, Darjeeling.

The research Staff of the Institute consists of the Director, Heads of the Departments, Research Fellows and Scholars, Research Assistants under grant-in-aid schemes are also appointed. Subject to limitations of accommodation facilities are given for research work to honorary workers. Investigations are being undertaken at present in the following subjects :—

- I. Physics ... Nuclear disintegration and fission ;
Neutron production and artificial
radioactivity ;
Cosmic Rays ;
Ultrasonics ;
Bioelectric potentials ; Electrophore-
sis ;
X-ray structure determination of
large molecules.

- II. Chemistry ... Nuclear Chemistry ; Separation of radioactive isotopes and their applications as tracer elements.
Plant Enzymes, Hormones and, Auxins.

Applied Chemistry : Synthetic plant hormones etc.

- III. (A) Plant Physio- Growth and tropic and autonomous
logy. movements in plants ; Transmission of excitations ; Photosynthesis ; Synthetic hormones as weed killers ; Vernalization and Photoperiodism ; Inorganic nutrients.

- (B) Cytogenetics and Effect of chemicals and radiations in
Plant-breeding. inducing polyploidy and chromosome alterations ; Application of methods of selection, hybridisation and artificially induced mutations in improving economic plants.

- (C) Anatomy ... Anatomical studies of the tall jute plant induced by X-radiations ; studies on the physiological anatomy of *mimosa* and other sensitive plants.

- (D) Paleobotany Microfossils as an indicator of age of the Vindhya, Mandi Salt and Salt Range.

- V. Microbiology Soil Micro-organisms ; antibiotics, Retting of plant fibres.

The Institute publishes 'Transactions of the Bose Research Institute ; Annual Report, Acharya Jagadish Chandra Memorial Lecture, etc.

Director and Head of the Department of Physics—Dr. D. M. Bose, M.A., Ph.D., F.N.I.

Head of the Department of Botany—Dr. K. T. Jacob, M.A., Ph.D.

Head of the Department of Chemistry—Dr. J. K. Chowdhury, M.A., Ph.D., F.N.I.

Officer-in-Charge, Microbiology section—Dr. P. Nandi, M.Sc., Ph.D., D.I.C.

Registrar—Sri A. K. Ghosh, M.Sc., F.G.S.

III.—CENTRAL BUILDING RESEARCH INSTITUTE

Introduction

The development of science, technology and industry has brought in their wake revolutionary changes in building materials and the design and construction of structures suited to the diverse requirements of modern civilized life. Traditional materials are being improved and newer materials evolved. Apart from the provision of protection and shelter against the inclemencies of the weather, and the vagaries of nature, buildings have to be designed and constructed to meet a variety of other purposes. Modern man also requires more comfort on which his efficiency depends. The tempo of constructional work is thus rapidly increasing and the speed of construction, and economic and social factors are becoming more and more important.

Most of these achievements and of technological endeavour have not, however, been based on planned scientific research and it is only in recent years that it has been realized that the problems of construction definitely require the systematic and organized attention of the scientist and the engineer. It has also become evident that the activities of different agencies engaged in various aspects of building research and construction require co-ordination in the interest of progress and economy. Building Research Institutes have been established in the U.K., Canada, South Africa and Australia and special provisions for building research also exist in the U.S.A. and France. In India we have so far drawn on knowledge and experience of Western countries for constructional purposes. Our problems have, however, their characteristic settings. A vast majority of our people live under primitive conditions and provide shelter for themselves using local materials and traditional knowledge. The speed of construction, durability and provision of comfort compare very unfavourably with what has been attained in countries in the West. Our housing requirements are of colossal dimensions. Also the cost of and demand on labour and materials are increasing. Speedier and economical methods of construction have, therefore, become an urgent necessity. Even a small percent reduction in the cost and increase in the speed of construction will result in enormous savings and improvement in the living conditions of the people. For these reasons the Council of Scientific and Industrial Research have decided to establish a Central Building Research Institute as one of its chain of National Laboratories.

Brief History

At the time of the planning of the National Physical Laboratory of the Council of Scientific and Industrial Research in 1942 one of the proposed divisions of the laboratory was that of buildings and housing. It was soon felt, however, that in view of the large number of problems to be considered and the need for a systematic scientific approach to their solution, a separate institution for building research was necessary. A Building Research Committee was set up in December 1943. The Committee held its first meeting in December 1944, and recommended that a Central Building Research Institute should be established. A Building Research Unit was located at Roorkee with the support of the Government of the Uttar Pradesh to work in close liaison with the Thomason College of Engineering (now the University of Roorkee). The unit started functioning in May, 1947, with a skeleton staff and had its location in a portion of the buildings of the engineering college. It was shifted in May, 1949, to two large hangars loaned to the Council by the University.

The Board of Scientific and Industrial Research at their meeting held in July 1948, had made a provision for a capital expenditure of Rs. 16 lakhs for the Institute to be spread over a period of three years and for an annual recurring expenditure of Rs. 4.25 lakhs.

Location

The Roorkee University has leased to the Council 10 acres of land on its eastern border for the building of the Institute. The Council has also purchased from the Defence Ministry a S.W.P. hangar having a floor space of about 3,500 square yards and this will ultimately house the engineering division and the workshop.

Function

The functions of the Institute will include :

- (i) Examination of building materials in common use and the methods of applying them with a view to effecting economy and improvement wherever practicable ;
- (ii) Examination of new materials or processes evolved at the Institute or by other outside workers,

- (iii) Scientific diagnosis of the causes and difficulties of failures in materials themselves or in their application,
- (iv) Dissemination of useful information and fostering the growth of a scientific spirit and outlook in the building industry in India, and
- (v) Preparation of standards of materials and codes of practices for various aspects of building construction.

Viewing it from a slightly different angle the subjects of research may be grouped into three main categories :

- (i) Efficiency of buildings dealing with such problems as heating, lighting and ventilation,
- (ii) Properties of materials used in buildings, *e.g.*, cement, plaster, bricks, and
- (iii) Structure and strength materials.

Reviewing these functions in slightly greater detail it is evident that a number of the so-called traditional building materials are many a time used uneconomically in various parts of the building. A systematic study of these materials will lead to an ultimate economy in the cost of structure and in the resources of the country in general.

The institute will undertake research on building materials, on engineering and structural aspects of buildings and their foundations ; on problems of comfort in buildings and their durability and speed of construction ; in collaboration with government departments, institutes, industries employing labour on a large-scale, and the building industry. Its activities will naturally include basic research and fundamental studies coming within its purview such as X-Ray studies and differential thermal analysis of clays and their electro-chemical and rheological properties, strains and stresses in structures and comfort in buildings. It will afford facilities for training of men for diverse types of construction and help creation of a body of trained men within the country. It will carry out surveys and disseminate scientific and technical information through a well organized information service. It will be helped in its work by an advisory council representing different interests and by standing and *ad hoc*

scientific and technical committees consisting of specialists in different subjects. The Institute will thus be brought into active touch not only with the problems of the building industry but with scientists, engineers and technologists dealing with problems of building research and development.

Organization

The work of the Institute will be organized in scientific and technical divisions, namely: Chemistry, Architectural Physics and Engineering as well as divisions dealing with specific projects of long duration, as distinct from projects which can be treated in individual scientific and technical divisions. There will also be sections dealing with administration and technical services respectively. The latter will include units of common service such as: mathematics, library and publication, information and survey, drawing office, etc.

Some Pressing Problems

One of the most important and pressing problems is the provision of houses for low income groups. Various types of materials such as cement, stabilized soil and hollow concrete blocks are being used for building such houses in different parts of the country. In some places cement guniting and prefabricated materials are also being tried. There is scope for co-ordination of these activities and for exchange of information. There is a great shortage of building materials of all types; the quality of many of them is not always satisfactory; wastage arising out of faulty methods of production as in the case of bricks is extensive; all these require attention. The Building Research Unit has already been carrying out some useful investigations in connection with low cost houses and soil stabilization. Brochures on (1) Low Cost Housing, (2) Village Housing in India, Part I, Madras State, (3) Village Housing in India, Part II, Punjab and integrated states have already been published. Important results on the utilization of lime sludge from sugar factories and soil stabilization have already been obtained. A detailed study of the different aspects of problems connected with manufacture of bricks has been undertaken and some interesting results have been obtained. It has also carried out a soil survey in connection with an air field for the Ministry of Defence.

With the establishment of the institute, these lines of work will be strengthened and work on other subjects initiated.

The post of Director has been offered for the time being to Dr. J. N. Mukherjee whose work on soil sciences which is related in many ways to building research has earned him a world wide reputation.

Surveys :

(i) *Village Housing*.—Publications (bulletins) relating to village housing in Punjab and Madras have been sent to C.S.I.R. for publication as bulletin of C. B. R. I. This will be followed by reports of Bombay and Uttar Pradesh.

(ii) *Low cost Houses*.—Information collected from many places in India of the efforts being made to build suitable houses for low income groups has been compiled into the form of a note and will be published.

(iii) *Other reports*.—A review on the existing information on the "Ventilation in Buildings" has been written and sent for publication as a bulletin of C. B. R. I. This will be followed by a review on

(i) foam concrete

(ii) soil stabilization

(iii) A number of notes on different topics, viz., material of construction, Pise and adobe, etc. have been compiled by the staff of the Institute.

Experimental Investigations :

Sindri Ash :

Work has been undertaken for the utilization of sindri ash and clinkers as :—

(i) Puzzolana

(ii) aggregate and

(iii) in the preparation of suitable bricks by an admixture of the ordinary brick making clays and this material, which is supposed to contain large percentage of carbon.

Wast lime-sludge :

The comparative work on the merits and demerits of lime-sludge in combination or alone for the purpose of soil stabilization have been complete and reported in a paper sent to the Journal of Scientific and Industrial Research for publication.

Thermal Behaviour of Buildings :

One year's data on the temperatures and humidities in similarly built houses having different orientations in Roorkee have indicated that a correct orientation plays a very important role from the point of view of comfort in a building.

Bricks :

It has been observed that by controlling the mechanical composition of the soil bricks of much better quality can be obtained.

Engineering Properties soils and soil surveys :

Work is also being carried out in studying the engineering properties of soil in the vicinity of the C. B. R. I. site with a view to find out the nature of the sub-soil for foundation work. A general soil survey of soils in the vicinity has also been undertaken.

Other Work :

- (i) Some alternative models, of a furnace for the expoliation of vermi culite have been prepared. The work is in hand.
- (ii) Work on the changes in the volume of foam and its stability are in progress.
- (iii) A number of substances are being tried for their use as a suitable water-proof or repellant coat over the mud-walls. Work is in progress.

**CENTRAL DRUG RESEARCH INSTITUTE,
LUCKNOW**

The Institute now comprises the following Divisions :

1. Division of Botany and Pharmacognosy,
2. Division of Medicinal Chemistry,

3. Division of Biochemistry and Biophysics,
4. Division of Microbiology and Parasitology,
5. Division of Pharmacology and Chemotherapy and
6. Division of Experimental Medicine.

**DIRECTOR, Dr. B. Mukherji, F.A.A.S., F.A.Ph.S.,
F.N.I.**

1. Division of Botany and Pharmacognosy:

(A) Staff:

Mr. S. L. Nayar—Junior Scientific Officer.

(B) Progress of work: This Division has undertaken to (a) compile a brochure on Indigenous drugs of India and (b) the Indian Pharmaceutical Codex. The object of undertaking such a work is to bring order in a field of study which was in a confused state and to serve as a guide to future productive and integrated research in the field of indigenous drugs by bringing in many data, which may be useful to the medical and pharmaceutical professions.

The former (a) would be suitable for reference purposes to research workers as they contain detailed chemical, pharmacological and clinical data and exhaustive references and the latter (b) on the style of B. P. C. giving useful data—chemical and clinical—can be used by personnel of drug industry in place of foreign compilations now in use.

While the details of 200 drugs have been written up in (a), the work on Indian Pharmaceutical Codex has been completed and in a short time will be available as a printed brochure for ready reference.

Side by side with the above project, the Division has actually set up a Herbarium consisting of 2050 medicinal plants for identification purposes and is actually assisting the various organisations in the state in identification of plants, advising on cultivation, etc.

2. Division of Medicinal Chemistry:

(A) Staff:

1. Dr. M. L. Dhar, Assistant Director.
2. Mr. V. N. Sharma, Senior Scientific Officer.
3. Dr. Nitya Nand, Senior Scientific Officer.

4. Mr. R. Gopalachari, Junior Scientific Officer.
5. Dr. N. M. Khanna, Junior Scientific Officer.
6. Dr. S. P. Popli, Junior Scientific Officer.
7. Dr. (Miss) S. Mahboob, Junior Scientific Officer.
8. Mr. R. P. Rastogi, Senior Scientific Assistant.
9. Mr. P. R. Bhandari, Senior Scientific Assistant.
10. Mr. S. Bhattacharji, Senior Scientific Assistant.
11. Mr. G. R. Chowdhury, Senior Scientific Assistant.
12. Dr. G. N. Vyas, Senior Scientific Assistant.
13. Mr. S. K. Chatterji, Junior Scientific Assistant.

(B) *Progress of work:*

This Division has undertaken work on both (a) Phytochemistry—plants reputed to be efficacious in indigenous systems of medicine and (b) Synthetic: in the preparation of a number of compounds useful as amoebicides, antimycobacterial and neuromuscular blocking agents.

An alkaloid of therapeutic activity—almost equal to d-tubocurarine has been isolated from *Cissampelos pareira* Linn. Work on other medicinal plants is on hand.

3. Division of Biochemistry and Biophysics:

(A) *Staff:*

1. Dr. D. L. Shrivastava, Assistant Director.
2. Dr. C. R. Krishna Murti, Senior Scientific Officer.
3. Dr. S. C. Agarwala, Senior Scientific Officer.
4. Mr. D. C. Dhar, Junior Scientific Officer.
5. Dr. A. T. Dudani, Junior Scientific Officer.
6. Dr. V. C. Vora, Junior Scientific Officer.
7. Mr. V. K. Mohan Rao, Senior Scientific Assistant.
8. Mr. S. N. Iyer, Senior Scientific Assistant.
9. Mr. S. N. Ghatak, Senior Scientific Assistant.
10. Mr. K. L. Arora, Senior Scientific Assistant.
11. Mr. K. C. Saxena, Junior Scientific Assistant.
12. Mrs. K. Shete, Junior Scientific Assistant.

(B) *Progress of work:*

Enzyme inhibition studies and elucidation of the mode of action of antibiotics, are in progress. The work has been undertaken from 2 aspects: (a) applied and (b) academic.

On the applied side,

- (1) a test medium for the assay of the antibacterial activity of drugs has been prepared from locally available

ingredients. This will possibly dispense with the necessity of importing the ready-made medicine by hospitals and institutions interested in the work. The utility of the medium for the production of sera and vaccines is being studied.

- (2) Work on the preparation of peptones from agricultural wastes like the oil-seed cakes.
- (3) Semi-large scale preparation of substitutes for lecithins from plant sources and comparing the nutritive value of these preparations with egg lecithin.
- (4) Processes have been worked out for the preparation of highly active diastatic and tryptic enzymes of bacterial origin using for the growth purposes, bran and oil-seed cakes. The enzyme prepared is under test for therapeutic application.
- (5) An antibiotic active against the common dysentery bacteria and allied organisms has been prepared from *B. subtilis* group. The toxicity and chemistry of the drug has been undertaken.

On the Academic side,

- (1) Investigation on enzyme inhibition by antibiotic have been extended to respiratory enzymes. The antibiotics have been shown to exert a kind of non-specific inhibition on many of the enzyme systems studied. The significance of these results in explaining the mode of action of these drugs as also in opening up new pathways for synthesis of chemotherapeutic agents is being studied.
- (2) In order to have a rational approach to the Chemotherapy of Cholera, a systematic investigation of the enzyme make up of the organism responsible for the disease has been undertaken. Enzymes involved in the liquefaction of gelatin, utilisation of amino acids of general respiratory processes have been studied.
- (3) The investigation on enzymes has been extended to the general metabolism of the organism. This would also throw light on the mechanism of reactions by which the pathogen derives energy and material for growth from its foodstuffs. This is expected to lead to some idea of the nature of pathogenesis of cholera.

- (4) With a view to standardising a procedure for the routine assay of the blood regenerating activity of liver extracts and like preparations, experimental lead anaemia has been successfully produced in rats by intraperitoneal administration of varying doses of lead acetate. The effect of Vitamin B₁₂, whole liver extract and certain fractions isolated from liver on this anaemia is being studied as also the mechanism by which lead brings about the anaemia condition in the rats.
- (5) Several local soil samples are being screened for isolation of antibiotic producing holds.
- (6) Chromatography—which is an extremely useful analytical tool is being used for identification of organic acids, sugars, enzymes as also the metabolites of various nutrients produced by *V. Cholerae*.

4. Division of Microbiology and Parasitology :

(A) Staff :

1. Dr. A. Mukherji, Senior Scientific Officer (left for West Germany for advanced training in Bacteriology recently).
2. Dr. A. B. Kar, Senior Scientific Officer.
3. Dr. B. M. Gupta, Senior Scientific Officer.
4. Dr. K. Bhaskaran, Junior Scientific Officer.
5. Dr. S. K. Gupta, Senior Scientific Assistant.
6. Dr. A. C. Roy, Junior Scientific Assistant.
7. Mr. O. P. Babbar, Junior Scientific Assistant.

(B) Progress of work :

Standards have been worked out for evaluation of drugs experimentally in animals. These standards are now being applied for the animal testing of the drugs prepared in this Institute.

Certain chemicals bring about chemical changes in cholera germs. One such group of chemicals in the Rosaniline dyes, render them comparatively harmless. The effects produced by them are being studied with the intention of applying the findings to the treatment of cholera for which no specific treatment has yet been established.

Intestinal diseases resembling dysentery from which usual causative organisms for dysentery cannot be isolated are not uncommon in this country. Work is being carried out in this Laboratory to find out the cause or causes for such diseases.

Methods have been worked out for the testing of insoluble drugs and oil in the test-tube.

5. Division of Pharmacology and Chemotherapy :

(A) *Staff:*

1. Dr. N. N. De, Assistant Director.
2. Dr. S. N. Pradhan, Junior Scientific Officer.
3. Dr. I. M. Chak, Junior Scientific Officer.
4. Mr. C. Ray, Senior Scientific Assistant.
5. Mr. K. S. Varadan, Senior Scientific Assistant.
6. Dr. V. R. Srinivasan, Senior Scientific Assistant.
7. Dr. R. N. Sur, Junior Scientific Assistant.
8. Dr. Raja Rama Rao, Junior Scientific Assistant.

(B) *Progress of work:*

Pharmacological investigations on the active principles isolated from *Cissampelos pareira* Linn, *Picrorhiza Kurroa*, *Nardostichys jatamansi* Luffa amara, etc., and a number of derivatives of N. N.'—bisalkyl N. N.' docamethylene bis-piperidinium dihalides which are supposed to possess anticurarine activity have been taken up.

Detailed studies on the antispasmodic activities of the compounds synthesised in the Division of Medicinal Chemistry are in progress.

6. Division of Experimental Medicine :

(A) *Staff:*

1. Dr. R. C. Shukla, Senior Scientific Officer.
2. Dr. R. N. Chakravarti, Junior Scientific Officer.
3. Dr. (Miss) R. Sharma, Junior Scientific Officer.
4. Mr. Balkrishna, Junior Scientific Assistant.
5. Dr. G. N. Srivastava, Senior Scientific Assistant.
6. Mr. U. N. Dey, Senior Scientific Assistant.

(B) *Progress of work:*

Pathogenesis of vitiligo is being studied. Biopsy studies have now revealed that melanin is completely absent in the leucodermic patches of patients.

Studies in the response to the action of ultraviolet ray therapy and nicotinic acid treatment are in progress. The minimal erythral dose of the leucodermic skin is observed to be higher than that of normal, both in pigmented and depigmented areas.

7. Information Section :

(A) *Staff :*

Dr. T. H. Shamo Rau, Senior Scientific Assistant.

(B) *Progress of work :*

The information Section is actively engaged in disseminating scientific and technical information needed by the Government organisations, drug industries and private concerns and individuals requiring information on drugs and pharmaceutical research. Several popular articles have been and are being written in scientific and technical journals and in special supplements on drug research and functions of this Institute. Radio talks, both to adults and children, are being arranged often to educate the masses regarding the importance of drug research making the country self sufficient in this respect.

CENTRAL GLASS AND CERAMIC RESEARCH INSTITUTE, CALCUTTA

There are few fields of industrial development in which scientific investigation has played a more decisive role than in the glass and ceramic industries. Whereas spectacular developments in these industries backed by scientific investigations have taken place in the countries of Europe and America, conditions in India have remained comparatively static. The need for the establishment of a Central research institute for these subjects was felt ever since 1918 by the Indian Industrial Commission and was emphasised again by the Indian Tariff Board, 1931. It was more keenly felt during World War II. To meet this long felt want, the Council of Scientific and Industrial Research decided in 1944, in pursuance of the recommendations of a committee presided over by Dr. S. S. Bhatnagar, F.R.S., to establish the Central Glass and Ceramic Research Institute at Calcutta as one of a chain of National Laboratories.

The Institute is located in Jadavpur in the southern suburbs of Calcutta. The foundation stone of the Institute was laid by the late Sir Ardeshir Dalal, a past President of the Indian Science Congress and then President of the Council of Scientific and Industrial Research. It was formally declared open by the Hon'ble Dr. B. C. Roy, Chief Minister, West Bengal, in August 1950.

Broadly speaking the functions of the Institute are :

- (i) Fundamental Research having a bearing on different branches of glass and ceramics.
- (ii) Testing and Standardisation.
- (iii) Technical Assistance to industry.
- (iv) Dissemination of Technical information.
- (v) Training of Technologists for special work.

In addition to fundamental research, while deciding the subjects of investigation for the general programme of work at the Institute, emphasis is laid on problems of direct bearing on the industries. The aim is to concentrate on investigations of national importance. The Laboratory is organised more for team work.

Studies in the response to the action of ultraviolet ray therapy and nicotinic acid treatment are in progress. The minimal erythermal dose of the leucodermic skin is observed to be higher than that of normal, both in pigmented and depigmented areas.

7. Information Section :

(A) Staff :

Dr. T. H. Shamo Rau, Senior Scientific Assistant.

(B) Progress of work :

The information Section is actively engaged in disseminating scientific and technical information needed by the Government organisations, drug industries and private concerns and individuals requiring information on drugs and pharmaceutical research. Several popular articles have been and are being written in scientific and technical journals and in special supplements on drug research and functions of this Institute. Radio talks, both to adults and children, are being arranged often to educate the masses regarding the importance of drug research making the country self sufficient in this respect.

CENTRAL GLASS AND CERAMIC RESEARCH INSTITUTE, CALCUTTA

There are few fields of industrial development in which scientific investigation has played a more decisive role than in the glass and ceramic industries. Whereas spectacular developments in these industries backed by scientific investigations have taken place in the countries of Europe and America, conditions in India have remained comparatively static. The need for the establishment of a Central research institute for these subjects was felt ever since 1918 by the Indian Industrial Commission and was emphasised again by the Indian Tariff Board, 1931. It was more keenly felt during World War II. To meet this long felt want, the Council of Scientific and Industrial Research decided in 1944, in pursuance of the recommendations of a committee presided over by Dr. S. S. Bhatnagar, F.R.S., to establish the Central Glass and Ceramic Research Institute at Calcutta as one of a chain of National Laboratories.

The Institute is located in Jadavpur in the southern suburbs of Calcutta. The foundation stone of the Institute was laid by the late Sir Ardeshir Dalal, a past President of the Indian Science Congress and then President of the Council of Scientific and Industrial Research. It was formally declared open by the Hon'ble Dr. B. C. Roy, Chief Minister, West Bengal, in August 1950.

Broadly speaking the functions of the Institute are :

- (i) Fundamental Research having a bearing on different branches of glass and ceramics.
- (ii) Testing and Standardisation.
- (iii) Technical Assistance to industry.
- (iv) Dissemination of Technical information.
- (v) Training of Technologists for special work.

In addition to fundamental research, while deciding the subjects of investigation for the general programme of work at the Institute, emphasis is laid on problems of direct bearing on the industries. The aim is to concentrate on investigations of national importance. The Laboratory is organised more for team work.

The Council has been generous in allowing utilisation of the services of its officers in the examination of special projects and inspection of factories and giving advice in matters of planning and development whenever requested to do so by Government department, corporate bodies and even foreign Governments, and already a number of cases requiring detailed examinations have been completed.

The Institute has an Advisory Board consisting of eminent scientists, industrialists and representatives of the industry, which advises with regard to budget, programme of research and reviews the progress. The first Chairman of the Advisory Board was Prof. M. N. Saha, F.R.S., and the present Chairman of the Board is Mr. G. D. Birla. Through this Board the Institute maintains contact with the Industry. The constitution of the present Advisory Board is as below :—

1. Sri G. D. Birla (Chairman).
2. Dr. S. S. Bhatnagar, F.R.S. (Member).
3. Prof. M. N. Saha, F.R.S. (Member).
4. Prof. S. N. Bose, (Member).
5. Sri D. N. Sen, (Member).
6. Sri M. G. Bhagat, (Member).
7. Director, Geological Survey of India, (Member).
8. Dr. Atma Ram (Director, Secretary).

Dr. Atma Ram has been appointed Director of the Institute since January, 1952.

The investigations at present undertaken at the Institute can be classified under several heads, namely, fundamental research ; investigations on the availability of raw materials and their beneficiation; standardisation of raw materials and finished goods ; improvement in the quality of finished products; finding out substitutes for raw materials in short supply including utilisation of naturally occurring materials ; investigation as to the possibility of producing articles in the country so far imported.

Researches are in progress on the properties of clays and steatites available in India and on the origin of colour produced in glasses by different colourants.

Investigations on raw materials form a part of long range programme, because so far the raw materials available in the country have not been properly studied. The Institute has

already published results of detailed investigations on the availability and beneficiation of raw materials required by the glass industry in the country. This work is being continued. Systematic work is now in progress in collaboration with the Geological Survey of India on the study of different clays available in the country required in the ceramic industry. The Geological Survey looks to the field part of the work and the samples so collected are examined at the Institute for their properties out of which promising samples are further collected in bulk quantities and subjected to detailed examination. Already about 800 Clay samples have been examined. Standards for raw materials, such as sands, sandstones quartzites, etc. have been laid down keeping in view the quality of such materials in the country. A number of the specifications have been finalised. This work is being done in collaboration with the Indian Standards Institution. In addition, beneficiation of raw materials, wherever they are of lower grade, is being actively pursued and special equipment such as a sand-washing plant of about half a ton capacity and a magnetic separator have been installed for such work. Specifications are also in the course of preparation for the finished goods such as glass ampoules, sheet glass, ink bottles, chemical porcelain, etc.

A special study is being made of the glass containers like bottles, jars, etc., which are used in large numbers for a wide variety of purposes in the chemical and pharmaceutical industries so as to improve their quality. In view of its importance to the growing ink industry, the work on ink bottles has already been completed.

Systematic study of refractory clays for their physical and chemical properties is in progress with a view to producing saggars with longer life so extensively employed in the pottery industry which will help in reducing the cost of production of pottery ware. Steatites of Indian origin are being studied with regard to their composition, petrographic and fired properties for the production of electrical porcelain and also for their utilization in the pottery industry in general.

There are some raw materials required by these industries which are scarce in the country and whose supplies may be cut off during emergency. Systematic study has been instituted for finding out substitutes for borax and selenium which are very essential for the ceramic industry. In addition, investigations are in progress on the utilization of naturally occurring

saltcake at Didwana (Rajasthan) as partial substitute for soda ash for the glass industry, which is in short supply and promising results have been obtained. Materials like mica waste are being studied for their utilization.

A special variety of glass of multicellular structure called foam glass possessing the lightness of cork and good heat insulating properties has been developed. It is expected to have great potential use in a tropical country like India in Housing and Refrigeration industry.

Investigations on the possibility of producing in the country articles such as signal glasses required by the railways, chemical porcelain, glass electrodes for pH meters extensively employed in scientific institutions and industries, enamelled ceramic resistors used in electrical industries, decorating materials, particularly ceramic colours, required in the glass and pottery industries, have yielded promising result. All these articles are at present imported. There are several small articles without which special instruments are almost rendered useless; their imports are so small that an industrial concern may not be interested in their manufacture. In this connection, the Institute has specially organized facilities for such work and at present articles like pyrometer sheaths, small crucibles and special refractory parts have been produced and the facilities of this section have been given to scientific and research institutions.

The Institute has a well-equipped library on glass and ceramic subjects and has a fairly large collection of back volumes of journals on these subjects. The facilities of the library are open to scientific workers from other institutions as also from the factories during working hours.

The Institute maintains a Museum displaying a large collection of raw materials, processed raw materials, and finished products from Indian as well as foreign glass and ceramic manufacturers. Some specimen of ancient glasses, terra cotta from Mohenjodaro, special samples from Egypt and samples of historic and scientific association are also exhibited. Exhibits illustrating some of the recently developed novel applications of glass are also on view.

There is a variety of equipment assembled for glass and ceramic research; a special feature is the arrangement for handling bulk samples and a variety of machinery and experimental

furnaces. Detailed testing of refractories has also been organized.

The Institute has received several donations towards its capital funds, the first one of Rs. 10,000 being from Dr. U. N. Brahmachari. Bengal Glass Manufacturers' Association donated a sum of Rs. 10,000 as a token of its members' keen desire for the establishment of the Institute. The late Mr. J. D. Varshney, U. P. Glass Works Limited, Bahjoi, one of the pioneers of the glass industry gave another Rs. 10,000. A sum of Rs. 30,000 has been promised by the All India Glass Manufacturers' Federation. In addition, a sum of £25 was received from Prof. W. E. S. Turner, F.R.S., Professor Emeritus, University of Sheffield, which symbolises his deep and abiding interest in the development of glass technology throughout the world and particularly at this Institute. It is hoped that as scientific and technical activities of the Institute develop, donations and endowments may be available from leaders of industry and public men of the country for the pursuit of specialised lines of investigations. A sum of Rs. 2,00,000 was donated by Mr. Ram Kumar Agarwala of Chrestien Mica Industries Ltd., Calcutta, for mica research at the Institute on the occasion of the visit of the Prime Minister to the Institute on the 2nd January, 1952.

CENTRAL FOOD TECHNOLOGICAL RESEARCH INSTITUTE, MYSORE

Post-Graduate Diploma Course in Fruit Technology

General Rules and Synopsis of the Prospectus

This Institute provides facilities for imparting training both in theory and practice in fruit and vegetable preservation, with a view to qualify students as teachers, demonstrators, or technical experts for employment in Fruit and Vegetable Preservation Factory.

1. *Duration of the Course.*—The next Post-Graduate Diploma Course in Fruit and Vegetable Technology starts from 1st July 1952. The duration of this course is 15 months with a break of 2 weeks from October 1st to 15th and includes 3 months' practical training in a recognised Fruit Preservation Factory.

2. *Number of students.*—Ordinarily 12 students are admitted, but under exceptional circumstances, the Director of the Institute may admit more students if facilities permit.

3. *Qualifications for Admission.*—Minimum qualification for admission is (1) a Degree in Chemistry or (2) a Degree in Agriculture with Chemistry as major subject. Preference will be given to M. Scs. and Honours Graduates who have studied Biochemistry and specialised in Chemistry of Foods.

4. *Application for Admission.*—Application for admission should be made in the attached form and must reach the Administrative Officer, Central Food Technological Research Institute, Mysore, complete in every respect before 7th June 1952. Application forms which are incomplete in any respect will not be considered. Registration fee at the rate of Rs. 2 which will not be refundable and a deposit of Rs. 30 should be sent along with the application by Money Order or crossed Postal Order, made payable to the Administrative Officer, Central Food Technological Research Institute, Mysore. The deposits from the students who are admitted will be retained as caution money and will be refunded on the satisfactory completion of the course after deducting any outstanding dues. The deposits from the candidates who may be selected for admission may be forfeited if they fail to produce satisfactory reasons for their inability to join the Institute in due time.

5. *Interviews.*—Candidates will have to appear at their own expense before the Selection Committee if called upon to do so.

6. *Age.*—The maximum age limit for admission to the Institute is 25 years and the minimum is 21, but the Director may waive the limit in individual cases if there are **special** circumstances to justify such relaxation.

7. *Tuition Fees.*—A fee of Rs. 15 per month is collected from each student. The fees will be payable quarterly in advance.

8. *Hostels.*—Hostel accommodation exists at the Institute. A fee of Rs. 10 p.m. is charged per room. Students accommodated in double seater rooms will be required to pay Rs. 5 p.m. each, payable quarterly in advance.

9. *Tours.*—Tours will be arranged for visiting important Fruit Preservation factories in India. They will be entitled to single Third class rail fare only during their tours—all other expenses being borne by the students themselves.

10. *Scholarships.*—Messrs. Harnarain Gopinath, Khari Baoli, Delhi, and the G. G. Fruit Preserving Factory, Haldawani, have awarded a scholarship of Rs. 50 each per mensem to the most deserving student of the course. Applications for the award of the scholarship should be submitted immediately on joining the course. The award will be made by the Director of the Institute to any student considering his/her merit, qualifications, financial circumstances etc., etc.

11. *Award of Diploma.*—Before the end of the session, the student will be examined in theory and practice by a Board of Examiners appointed by the Director of the Institute and will be awarded a Diploma on (i) their being declared successful in the examination and (ii) on receipt of a satisfactory report from the factory concerned on their successful completion of 3 months' factory training.

12. *Employment.*—Although the Institute does not guarantee any employment to the students, every effort will be made to get employment for those who successfully complete the course.

CENTRAL LEATHER RESEARCH INSTITUTE, MADRAS

1. *Entrance qualification for each course of the University.*—This is a research institution to promote the development of the Indian Leather Industry along modern lines. Students are not admitted for coaching but science graduates with experience in leather industry are appointed to work as Research Staff. "B.Sc." students who have taken admission in the Alagappa Chettiar College of Technology, Madras, for a 2½ years' course in leather technology with a view to qualify themselves for the B.Tech. Degree of the Madras University are given training in leather subjects and practical training at this Institute under arrangement with Madras University.

2. *Duration of each course.*—No course has been prescribed as the Institute is intended to do research work only.

3. No students are admitted in the Institute. However, training in leather subject is given to students of Alagappa Chettiar College of Technology, Madras University.

4. *A financial statement showing Government grants, fee, endowments, donations, etc., and the properties of Government grant to other sources of income.*—The Council of Scientific and Industrial Research had sanctioned the following recurring grant per year for the Central Leather Research Institute:—

	Rs.
April, 1950 to March 1951	1,27,000
April, 1951 to March 1952	2,00,000
April, 1952 to March 1953	4,15,000

Out of a donation of Rupees two lakhs promised by the tanners of the Madras State for the establishment of the Institute, a sum of Rs. 1,20,000 has been actually received.

5. *Subjects in which facilities for post-graduate studies and research exist.*—Research facilities are available in Chemistry, Bacteriology, Biochemistry and Microscopy of leather manufacture and actual leather manufacture.

6. *Any special facilities in the form of scholarships, etc., for students from other Universities and foreign countries.*—The Council of Scientific and Industrial Research has allocated one scholarship to Central Leather Research Institute to provide training to a selected candidate every year in a leather subject.

A programme of research based on a study of the needs of the Indian leather industry has been drawn up. Work on twenty-five research projects was started of which the following nine have been completed : (1) application of modified myrabalan extract in place of myrabalan nuts in East Indian tannage of kips and skins (Patent No. 48342) ; (2) Preparation of synthetic tannin from (a) vegetable products, e.g., cashew shell and bhilawan shell liquids, and (b) phenols and other coal tar distillation products ; (3) manufacture of basic aluminium sulphates ; (4) preparation of combined chrome, aluminium and iron tannin agents ; (5) systematic study of the East India tannage of kips and skins ; (6) improvement in the extraction of vegetable tan-liquors and methods for arresting their fermentation ; (7) process for the manufacture of glazed kid and box sides ; (8) potentiometric titration studies on tan-liquors from indigenous tan-stuffs ; and (9) treatment of tannery effluents.

The following projects are in progress ; (1) substitutes for wattle bark ; (2) modification of properties of vegetable tan-liquors ; (3) chemical studies on indigenous vegetable tan-stuffs ; (4) effect of organic and inorganic salts on tannage ; (5) combination mineral tannage ; (6) combination chrome-vegetable tannage to produce retan leather for army boot uppers ; (7) syntans ; (8) commercial fat liquors ; (9) preparation of depilating agents like sodium and calcium sulphates ; (10) manufacture of glazed kid and box sides ; (11) rapid sole leather tannage ; (12) Roller skins ; (13) use of divi-divi in rapid tannage ; (14) curing of goat skins for export ; (15) Analytical methods for the determination of acidity and basicity of mineral tanning liquors and leathers ; and (16) fixing standards for E. I. tanned kips, and goat and sheep skins.

**CENTRAL ROAD RESEARCH INSTITUTE,
OKHLA, DELHI****History**

Although the importance of Road Research has long been known, it was not until the recent rapid tempo of industrialisation in India, and urgent needs of food production and transportation that the potentialities for research work were fully realised for constructing good roads, improving the existing ones and maintaining all these properly in an efficient and economical manner to get the maximum benefit for the country.

The need for a Central Road Research Institute for India was emphasised for the first time at a conference of Chief Engineers of provinces and states held in December 1943 at Nagpur. Finally definite proposals for the establishment of a Central Road Research Institute were initiated due to the dynamic efforts of Dr. S. S. Bhatnagar, Director, Scientific and Industrial Research, Government of India. Their untiring efforts resulted in the opening of the Central Road Research Institute, Delhi, by the Hon'ble Prime Minister of India, Shri Jawaharlal Nehru, on the 6th of July, 1952.

Functions

The main functions of the Institute are :—

1. Fundamental research on the behaviour of materials used in road construction and devising methods of measurement for this purpose.
2. Correlation of laboratory tests on standard materials with those under actual conditions to secure estimates of the behaviour of road materials in practice.
3. Tests on soils and study of soil mechanics with a view to evolving low cost roads, especially for helping the development of villages.
4. Standardisation of specifications for roads and for road building plant and machinery.
5. Devising instruments for tests on roads and bridges, such as those required for the measurements of irregularities of road surfaces, impact factors, automatic recording of traffic, etc.

6. Studies on the characteristics of different types of roads under different traffic conditions, incidence of accidents, road safety devices, and road statistics.
7. Co-operative research schemes and co-ordination with Engineering College, other research institutes and industrial concerns doing similar work and tendering technical advice and assistance, where sought.
8. Dissemination of results of research through pamphlets, journals and films for the benefit of road engineers.
9. Training of technical personnel and research workers.

Organizational set up and Co-ordination of Work

Close liaison between the Central Road Research Institute and other research and experimental stations and learned bodies, like the Indian Roads Congress, is envisaged.

For obtaining best results from research, the Institute will always work in collaboration with the Roads Organisation of the Ministry of Transport, Government of India.

In order that problems of mutual interest are exchanged between the various organizations, co-operative research schemes will be undertaken with all road research bodies in the country, so that duplication of technical work may be avoided and laboratory researches and field experiments could be efficiently and economically carried out together, thus leading to the maximum benefit to each of the participating concerns.

Divisions of the Institute

For carrying out the above functions, the technical work of the Institute is organised in the following five Divisions :—

1. *Soils Division*.—(a) mechanical and physical properties of soils, (b) moisture movement, (c) waterproofing of soils, (d) soil compaction, (e) stability of slopes, (f) soil stabilization methods for low-cost roads, (g) presence of deleterious salts, (h) pavement designs and (i) performances of machines.

2. *Rigid Pavement Division*.—(a) Chemical composition of concrete with special reference to its use for road and bridge construction, (b) Concrete plant and machinery, (c) Measurements of performances, (d) Design of mixes and (e) Testing for quality control of concrete.
3. *Flexible Pavement Division*.—(a) Natural asphalts and their products used for road construction, (b) Improvement of Indian coal-tar and its products for road use, (c) development of full-scale processes, (d) measurement of performances of machines and (e) tests for aerodrome runways.
4. *Roads Division*.—(a) outdoor tests on surface irregularities, skidding, side slipping, vibration, tractive resistance, impact and roughness of roads and (b) accelerated tests under controlled conditions on the durability and control tests under actual road conditions and correlation with laboratory tests.
5. *Traffic Engineering, Economic and Statistical Research Division*.—(a) factors affecting road development and construction, (b) economic surveys and their effect on the planning of roads, (c) use of traffic surveys and statistics in the design of roads and bridges, (d) studies on economics of different highways and transportation, (e) study of the behaviour and characteristics of different types of vehicles using roads, especially bullock-carts and (f) design of road safety devices.

The ancilliary sections of the institutes are :—

Workshop, Museum, Library, Information and Intelligence, Photography and Drawing, Publication, Administration, Purchase and Stores.

Research Work

The important problems that are in hand in various Divisions of the Institute are :

1. Comparative studies on the compaction of soils.
2. Analysis and classification of black cotton soils.
3. Use of molasses in road construction.
4. Surface dressing specifications, with and without primers.

5. Tests for quality control of concrete on major projects.
6. Effect of adding fluxes on the strength of bricks used for road building.
7. Investigations on bullocks-cart-wheel-axels.
8. Layout of traffic roundabouts.
9. Determination of load bearing capacity of soils for designing foundations to multi-storeyed buildings.
10. Soil tests for designing roads and bridge foundations.
11. Study of road surfaces under different traffic conditions.

Building and other Constructions

Prior to the construction of the main building, the laboratory was accommodated in a temporary building, built of American plywood sheets and research work on a small scale was undertaken from October 1950.

The first stage of construction consisting of Administration and Technological blocks has been completed. The Administration Block contains a general Administrative Section, including the Director's office, a small library, a lecture hall and conference room.

The Technological Block houses the research Divisions in four spacious halls 60' \times 28' with attached rooms for office use. The unique feature of the above halls is the roofing composed of five continuous shells of reinforced concrete. The shell is 2½" thick and is stiffened on its lower edge by reinforced concrete beam 4' 9" deep. Thus, the design of the 60 ft. span halls without central pillars gives great flexibility in arranging the different sections of the research Divisions.

In the next stages of construction, it is envisaged to take up (1) the second floor housing the Economic and Statistical Division, Photography and Drawing Sections, (2) Central Library, (3) the Auditorium and (4) Canteen.

An experimental Test Track, about 5 furlongs long and consisting of black top surfacings, has been built at a cost of 1 lakh on the main Delhi-Mathura Road in front of the Institute, along with a permanent diversion road for diverting the normal traffic while the experiments are being carried out.

Capital Expenditure

An expenditure of about Rs. 29.64 lakhs has been incurred for the first stage of construction of buildings, equipment and fittings, etc.

Staff

The scientific staff of the Institute consists of a Director, Assistant Directors incharge of various Divisions with Research Officers and Research Assistants to help them. In addition to these there are adequate technical and administrative staff to man the Workshop and the Administrative sections.

Director :

Dr. E. Zipkes, D.Sc.(Tech.)

Assistant Directors :

1. Dr. R. K. N. Iyengar—Traffic Engineering, Economic and Statistical Research Division.
2. Dr. H. L. Uppal—Soils Division.
3. Mr. P. K. Chatterjee—Roads Division.
4. Mr. G. F. D. Gonsalves—Rigid Pavements Division.
5. Mr. C. G. Swaminathan—Flexible Pavements Division.

Administrative Officer :

Mr. Nau Nihal Singh.

**FOREST RESEARCH INSTITUTE & COLLEGES,
P. O. NEW FOREST, DEHRA DUN**

Forest Research Institute (for Forestry Research and Forest Products Utilisation Research), New Forest.

Indian Forest College (for Forest Officers), New Forest.

Indian Forest Rangers College (for Forest Rangers), New Forest.

Madras Forest College (for Forest Rangers), Coimbatore.

General

A Forest School was founded at Dehra Dun in 1878. It became also a recognised centre of forest research in 1906, when a staff was appointed to investigate problems connected both with the growing of forests and with the utilisation of forest produce.

In 1914, the first Forest Research Institute was opened on the Chandbagh Estate, Dehra Dun. Within a very few years the war demand for forest produce emphasised the scope and need for extensive research far beyond that for which accommodation had been provided. Plans were, therefore made for a new Forest Research Institute on the New Forest Estate a few miles out of Dehra Dun, and it was opened on the 7th November, 1929. The old Institute was converted into the Indian Forest Service College, but with the closing of that College in 1932, the whole of the Chandbagh Estate was given up, and with many additions and modifications now forms the "Doon School".

While the Forest Colleges at Dehra Dun have their own separate staff for instruction in general forestry and forest engineering and surveying, both at headquarters and on tours, the Colleges form an integral part of the Forest Research Institute and Colleges and the research officers of all the branches of the Research Institute lecture to the students in their respective subjects.

2. Forest Research

The main buildings of the Forest Research Institute at New Forest cover an area of 7 acres, and contains laboratories, museums, a herbarium, and up-to-date central and branch

libraries. There are also separate buildings housing chemical laboratories, an insectary, a sawmill, a pulp and paper plant besides the wood working, timber preservation, composite wood, wood seasoning and timber testing sections. The surrounding grounds, which cover 1,150 acres, include a botanical garden, some 250 acres of demonstration plantations, experimental gardens and nurseries.

The activities of the Forest Research Institute are mainly directed towards research ; but the Institute functions also as a centre for the whole country for technical instructions and for the service of information on all technical matters connected with forests. The work is divided amongst 4 branches dealing with forestry and forest protection, *viz.*, Silviculture, Botany, Mycology and Entomology ; and nine branches connected with forest products utilisation, *viz.*, Wood Technology, Service, Timber Mechanics, Wood Seasoning, Compositive Wood, Wood Preservation, Cellulose and Paper, Chemistry of Forest Products and Minor Forest Products. In addition, a Statistical Branch ensures correct layout of experiments and statistical analysis of data. A Publicity and Liaison Branch is also maintained as a general service branch.

No regular courses of training are conducted but limited facilities are available for training in research methods and for the training of technical personnel for related industries. A certain number of post-graduate students are also accepted for undertaking specified pieces of research under the guidance of the Branch Officers concerned. Silvicultural and Statistical training and Refresher course for forest officers from states are also conducted as and when necessary.

3. Forest Education

Forest education in India was started in 1878 at the Forest School at Dehra Dun for the training of forest rangers. The school came directly under the Government of India in 1884, and as the Imperial Forest College trained rangers at first for the entire country, Dehra Dun has remained the headquarters of forest education for the training of forest rangers, though for the period 1912 to 1939 and again 1945 to 1948, rangers for the Central and South Indian region were trained at the Madras Forest College at Coimbatore. With effect from 1948, the training of forest rangers is undertaken by the Government of India at the two centres—Dehra Dun and Coimbatore.

In 1912 a separate course was started for the Provincial Forest Service as then constituted. This course was closed in 1928, with the cessation of direct recruitment to the old Provincial Services. From the 1st November, 1926, the training of Indian probationers for the Indian Forest Service was commenced, a separate Indian Forest Service College being established in the old Forest Research Institute buildings at Chandbagh, Dehra Dun. This College, however, had to be closed in November, 1932, owing to the cessation of recruitment to the Indian Forest Service.

Following the constitutional changes since 1935, the old Indian Forest Service is slowly disappearing, and in its place each State is building up its own Superior Forest Service. For the training of officers for these new state Forest Services, the Indian Forest College has been established at New Forest in conjunction with the Forest Research Institute. It was opened in May, 1938.

4. Indian Forest College

The Indian Forest College is housed in the Forest Research Institute building at New Forest and is well equipped with lecture rooms, engineering drawing rooms, biological laboratories and chemical laboratories. The museums, herbarium, laboratories and workshops and the Central Library of the Forest Research Institute form an important part of the College, in so far as they are largely used for educational purposes by the research officers and College staff. Hostel accommodation and a common mess are provided. A large playing field with a pavilion provides football and hockey grounds, a cricket pitch, tennis courts, and a most modern squash court, and the mess billiards and other indoor games.

The course covers two years, and among other conditions a science degree not lower than Second Class, is required as a qualification for entry. Only those students are accepted who are deputed by their States in accordance with the College rules.

Admissions are made in April of each year and usually limited to 35 students in any course.

The fees as at present fixed are Rs. 3,500 per year and the total cost of the two-year course is about Rs. 13,200 as follows :—

	Rs.
Fees at Rs. 3,500 per year	7,000
Stipend at Rs. 150 p. m. (to cover living expenses)	3,600
Travelling expenses for field training and tours	1,400
Funds for initial equipment	1,200
Total ...	<u>13,200</u>

Provision also exists for the admission of students sponsored by foreign countries. Foreign candidates should conform to the educational and physical standards prescribed for Indian candidates.

The College fees for foreign students are Rs. 500 per annum and stipend Rs. 250 per month.

Five seats are reserved for candidates from South East Asian Countries under the Expanded Technical Assistance Programme of the Food and Agriculture Organisation the UNO.

5. Indian Forest Ranger College

The Indian Forest Ranger College (formerly known as the Forest School and the Imperial Forest College) is housed partly in the original College buildings at Dehra Dun and the rest in new buildings in New Forest. These comprise lecture rooms, engineering halls, biological laboratories and museums besides hostels and messes for the students. The surrounding grounds in Dehra Dun, covering about four acres, constitute a small arboretum and include tennis-courts, while in addition there is a good playing field adjacent.

The course covers two years. Among other conditions, the minimum qualification for admission to the College is a pass in the Intermediate examination of an Indian University or its equivalent, but the usual standard is higher. Only those students are accepted who are deputed by their States. Arrangements exist at Dehra Dun for admitting upto 72 students each year.

The fees as at present fixed are Rs. 1,500 per year, and the total cost of the course is about Rs. 6,500 as follows :—

	Rs.
Fees at Rs. 1,500 per year	3,000
Stipend at Rs. 75 p. m. (to cover living expenses)	1,800
Travelling expenses for field training and tours	800
Initial equipment	900
Total ...	6,500

For foreign students the tuition fee is Rs. 200 per annum.

6. Madras Forest College

This college which was previously administered by the Madras Government for the training of forest rangers only, was taken over by the Government of India in July, 1948, and expanded to function as a second centre (identically on the same lines as the Forest Colleges at Dehra Dun) for the training of forest rangers. The Coimbatore forest college can admit upto 72 students in the rangers' course each year. The course at Coimbatore commences on the 1st of July each year.

A Regional School for the training of Foresters for the South Indian region has been established at Coimbatore from 1st July 1952 under the Forest Research Institute and Colleges. The Course is of one year's duration.

The fees as at present fixed are Rs. 800 per year, and the total cost of the course is about Rs. 1,700 as follows :—

	Rs.
(a) Tuition fee	800
(b) Stipend at Rs. 60 p.m.	600
(c) T. A.	150
(d) Equipment	150
Total ...	1,700

7. Enquiries

All enquiries concerning the Forest Research Institute and Colleges, Dehra Dun or the Madras Forest College, Coimbatore, may be addressed to the President, Forest Research Institute and Colleges, New Forest, P. O., (Dehra Dun), Uttar Pradesh.

8. Staff

Direction :

Shri C. R. Ranganathan, M.A.(Oxon.), I.F.S., President,
Forest Research Institute and Colleges.

Shri A. Banerji, B.Sc., Registrar, F.R.I. and Colleges.

Shri K. L. Aggarwal, M.Sc., M.A.(Oxon.), I.F.S., Director
of Forest Education, F.R.I. and C.

Heads of the Research Branches :

Shri V. S. Krishnaswamy, M.A., I.F.S., Central Silviculturist.

Dr. K. Bagchee, M.Sc. (Cal.), Ph.D. (Edin.), Forest
Botanist and Mycologist, Officer-in-Charge, Mycology
Branch.

Shri M. B. Raizada, M.Sc., Sy. Botanist and Officer-in-
Charge, Botany Branch.

Dr. M. L. Roonwal, Major, M.Sc., Ph.D. (Cantab.)
F.N.I., Forest Entomologist, Chief Research Officer.

Dr. K. A. Chowdhury, M.B.E., B.A.(Cal.), D.Sc.(Edin.),
M.S.(Syr.), Wood Technologist, Chief Research
Officer, Wood Anatomy Branch.

Shri L. Simon, M.Sc.(Eng.), Chief Research Officer
Service Branch.

Shri V. D. Limaya, B.E.(Mech.), A.M.I.E.(Ind.), Chartered
Engineer (India), Senior Research Officer, Officer-in-
Charge, Timber Mechanics Branch.

Shri M. A. Rehman, M.Sc., A.R.I.C., A.Inst.P., Senior
Research Officer, Officer-in-Charge, Wood Seasoning
Branch.

Dr. D. Narayanamurthi, M.Sc., Dr. Ing., A.I.S.Sc., F.R.I.C., F. Inst. P'M.I. Chem., E.F.N.I., Chief Research Officer, Officer-in-Charge, Composite Wood Branch.

Dr. A. Purushotham, M.Sc., D.Sc., F.Inst.P., Memb., A.R.E.A. & A.W.P.S., Officer-in-Charge, Wood Preservation Branch.

Dr. R. V. Bhat, M.Sc.(Tech.), Ph.D.(Bombay), Ph.D.(Manchester), Senior Research Officer, O/C. Cellulose and Paper Branch.

Dr. S. V. Puntambekar, M.Sc., Ph.D. (Illinois), F.A.Sc., Senior Research Officer, (Chemist), Officer-in-Charge, Chemistry of Forest Products Branch.

Shri R. L. Badhwar, M.Sc., Senior Research Officer, O/C. Minor Forests Products Branch.

Dr. K. R. Nair, M.A, M.Sc., Ph.D., F.S.S., F.A.S.A., Statistician, Officer-in-Charge, Statistics Branch.

Shri K. L. Aggarwal, M.A.(Oxon.), M.Sc.(Pb.), I.F.S., Publicity and Liaison Officer (Additional Charge).

Indian Forest College :

Shri V. P. Mathur, Dean and Professor of Forestry.

Shri R. C. Kaushik, B.Sc.(Agri.), A.I.F.S.(Hon.), D.C.F., P.F.S.(I), Lecturer.

Capt. N. J. Masani, B.E., A.M.I.E.(Ind.), C.E., Lecturer in Engineering and Surveying.

Shri S. S. Mandal,

Shri N. D. Bachkhethi,

Shri O. E. Peters, B.Sc., D.P.Ed., P.T. and Games Instructor.

Indian Forest Ranger College :

Shri G. S. Dhillon, M.Sc., A.I.F.C., Advd. Course in Forestry (Oxford), Principal and Senior Lecturer.

Shri S. V. Venkataramanan, B.A., Lecturer-in-Charge,
Senior class 'A' Section.

Shri M.M. Saklaini, B.Sc., I.F.S. (Dip.), Lecturer-in-Charge,
Junior Class 'A' Section.

Shri A. B. Lal, B.Sc., Advd. Course in Forestry (Oxford),
Lecturer-in-Charge Junior 'B' Section.

Shri J. P. Thomas, B.E., Assistant Lecturer in Engineering
and Surveying.

Shri Jaswant Singh	} Asstt. Instructors.
Shri Nathi Singh	
Shri Uttam Singh	
Shri W. N. Ramchandani.	

Madras Forest College:

Shri Y. M. L. Sharma, M.Sc., A.I.F.C., Principal.

Shri K. K. Nair, Instructor.

Shri S. S. Harisinghani, Asst. Instructor.

Shri V. M. Laungani, Asst. Instructor.

Shri M. V. Achar, Asst. Lecturer in Engineering and
Surveying.

The Colleges are run by the Central Government and there is no other income except tuition fee which is treated as revenue of the Central Government. The total number of students at these Colleges during the year 1952-53 is as follows:—

(i) Indian Forest College	70
(ii) Indian Forest Ranger College, Dehra Dun	140
(iii) Madras Forest College, Coimbatore ...	72
(iv) Regional School for Foresters Coim- batore	21

THE FUEL RESEARCH INSTITUTE OF INDIA, JEALGORA, BIHAR

Introduction

For some years economists, statesmen, and industrialists in India have expressed concern over the proper utilisation and assessment of the coal supplies of the country. Between 1940 and 1944 various schemes for the establishment and finance of a Fuel Research Institute were considered, but definite decisions were not taken until 1944. The Foundation Stone of the Fuel Research Institute was laid on the 17th November, 1946 and the Institute opened officially by Dr. Rajendra Prasad, President of the Republic of India on the 22nd April 1950. The Institute is one of the Chief laboratories of the Council of Scientific and Industrial Research.

Location :

The Institute is located at Jealgora, Manbhum, Bihar, and lies in the heart of the Jharia Coalfield some 10 miles south of Dhanbad, 7 miles from Sindri and 170 miles of North-West of Calcutta. The site occupies 170 acres of ground, formerly the property of the Raja of Jharia, who generously donated the superior rights of the land to the Council of Scientific and Industrial Research for the accommodation of the Institute and its laboratories, workshops, etc.

Organisation :

The Institute conducts research into the major problems of fuel—solid, liquid and gaseous—and operates the physical and chemical survey of the coals of India. The object of this survey is to provide a reliable assessment of the coal resources of the country both in quality and quantity, and to ensure that different types of coal are utilised to the best advantage. In addition to problems of fundamental and applied research, technical investigations into the sampling and analysis of fuels are also undertaken at the Central Institute, and pilot plant developed for different processes.

The main divisions of the Institute are :—

1. Physical and Chemical Survey of Coal Resources
(Including field laboratories).

2. Carbonisation and By-Products (including Colloids and Rheology Sections, Tars and Plastics).
3. Liquid Fuels (including Hydrogenation, Synthetic Fuels, Petroleum and substitutes).
4. Gaseous Fuels (including gasification and combustion control).
5. Analysis and Testing.
6. Physics (including X-ray and Spectroscopy).
7. Engineering (including preparation of coal for the market, coal washing, boiler plant, powdered coal, etc).
8. Library and Intelligence.
9. Administration and Office.

The total cost of the Institute inclusive of buildings, fittings and equipment amounts to Rs. 30 lakhs. This does not include the cost of pilot plant for which an additional sum of Rs. 118.75 lakhs is required in the future. The staff of the Institute, including the Coal Survey Laboratories, consists of about 120 qualified scientists, technologists and engineers and about 50 administrative staff with the necessary labour: the Director is Dr. J. W. Whitaker, and the Deputy Director Dr. A. Lahiri.

Programme of Work:

The scope and importance of fuel research in the country is great. India, now producing over 30 million tons of coal per annum is the second largest producer of this essential raw material in the Commonwealth. Coal remains, even to-day, the most important mining industry in India, representing more than 60 per cent of the total value of India's mineral production. In India there are large supplies of iron ore. As the amount of metallurgical coal is unfortunately not over-abundant, researches into the upgrading of coking coals by mechanical coal cleaning (*i.e.*, washing, etc.), and into the possibilities of blending of coal for coking are of paramount importance. Washability studies, started at the instigation of the Fuel Research Committee some years ago, and the work of the Coal Blending and Coking Research Sub-Committee, Jamshedpur, have done much to help in this direction in the past decade. Extensive and thorough investigations on these subjects are conducted at F. R. I. as well as further investigations into several other items of research.

Indian fuels have a number of problems peculiar to themselves. For example, an important difference exists between the coals of India and those of Great Britain. In Britain most seams are relatively clean, or can be separated into clean and refuse bands. But this line of demarcation is seldom sharp with Indian Coals. Frequently the clean coal has an ash of 12 to 15 per cent or more—a feature attributable to the drift origin of the seams. These coals are thus difficult to clean by ordinary washing methods, a difficulty to be expected as the coal and foreign matter were originally deposited simultaneously as sediments from water. The coals in question are of the bituminous type, and many of the seams yield excellent coke with low sulphur content, in spite of the comparatively high ash. On the other hand, certain seams remain unworked because of still greater contamination with foreign matter. Although the sulphur in the main coals of India is very low, yet in the Assam Coalfield unusual difficulties are experienced because of abnormally high sulphur, present largely as organic sulphur. The ash of these coals is low, the calorific value high, and they yield a moderate coke; sulphur is the chief handicap. Problems of coal cleaning and purification are thus particularly important and require special attention.

The present programme comprises a rapid preliminary coal survey of the chief seams, including proximate and ultimate analysis, washability tests, ash analyses and tests, coking tests, carbonisation assays, gasification tests and washability studies. The production of oil from coal, investigations into tars, development and extension of the uses of powdered coal, and studies in coal constitution also form a basic part of the programme. Subsequent work includes more detailed examinations on the above lines and further researches into the utilisation of coals, either directly as fuels or indirectly as the products of carbonisation, complete gasification, hydrogenation, etc. Work will later be done on Indian oils and fuels not derived from coals, such as wood and alcohol. Fundamental researches are not neglected. Pilot plant is being developed and constructed as required.

Coal Survey:

In order to assess the coal reserves of the country, Coal Survey Laboratories are being established in the chief coalfields as follows:—

1. Raniganj Field—Laboratory near Raniganj in West Bengal (Bansra).

2. Jharia Field—Laboratory at the Central Institute.
3. Bokaro-Ramgarh-Karanpura Field—Laboratory at Ranchi.
4. Central Indian Coalfields including M. P., V. P. and other stages—Laboratory at Bilaspur.
5. Assam Field—Laboratory at Jorhat.

For some time, the Jharia and Raniganj Coal Survey Stations have been functioning from the Central Institute, but a separate building for housing the Raniganj Laboratory has been purchased and alterations are in progress. The B. R. K. Laboratory at Ranchi has been in operation for one year. Suitable buildings for the M. P. and Assam Laboratories are being equipped.

The staff for Survey Work are first trained at the Central Institute. Each Coal Survey Laboratory carries a staff of 8 to 10 qualified scientists under the charge of a Senior Officer. The organisation and conduct of the survey involve considerable work, and constitute an important function of the F. R. I.

Work Already Achieved:

Washability studies of many of the seams of the Jharia, Raniganj, Bokaro, and Central Indian Coalfields, and preliminary investigations on the carbonisation of Indian Coals have been made. In addition, attention has been given to the synthesis of oil by the Fischer-Tropsch process, and to laying the foundations of sound Sampling, Analytical and Testing technique. Analyses of hundred of coals have been done, *e.g.*, screen analysis, proximate and ultimate analysis, (including nitrogen, sulphur and phosphorus) caking index, calorific value, etc.

Current Researches:

The more important researches now in hand are:—

1. Cleaning of Coal by Cyclone Washer, Froth Flotation, etc.
2. Spontaneous Combustion of Coal.
3. Fluidisation Studies.
4. Washability Studies: Efficiency of Coal Washers.

5. Heat of Wetting Investigations.
6. Adsorption of Moisture on Coal.
7. Synthesis of Hydrocarbons by Fischer-Tropsch Process and by Hydrogenation.
8. Recovery of Cyclopentadiene, Coumarone, Indiene, etc., and Production of Resins from Crude Benzole.
9. Determination of Phosphorus in Coal Ash.
10. Standardisation of the Rapid Methods for the Determination of Carbon and Hydrogen.
11. Water of Hydration in the Mineral Matter of Coal.
12. Bomb Calorimetry: Oxygen in Coal.
13. Preparation of Standard Sand for Caking Index Determination from Indigenous Sources.
14. Desulphurisation of Assam Coal.
15. Coal Constitution.
16. Coal Tar Investigations.
17. Composition of Coal Tar Pitch.
18. Preparation of Colloidal Fuel.
19. Lignite Investigations.
20. Carbonisation (including Gray-King Assay, Plasticity tests, etc.)
21. Briquetting of Coals and Lignites.
22. Breaking Characteristics of Coals.
23. Studies on the Size and Shape of Broken Coal and Size-Consist of Run-of-Mine Coal.
24. Powdered Coal Burners.

25. Coal Petrography Studies.
26. Preparation of Ion-Exchange Compounds.
27. Desiccants from coal.
28. Combustion of Coals, and Efficiency of Plant.
29. Analytical Investigations (including direct determination of oxygen in coal, nitrogen, fluorine, phosphorus, silica, etc.)
30. Recovery of Pyrites from Coal Washery Tailings.
31. Systematic Study of Size grading of Indian Coals.
32. Experiments on the Sampling of Coal.
33. Determination of Phosphorus in Coal by Spectaroscopic Method, and by Bomb Combustion.
34. X-Ray Radiography of Coal.
35. Electrical Conductivity of Coal and Coke.
36. Preparation of Active Carbons from Coals and Lignite

Consultations :

Technical aid to the industry and to the Government constitutes another important function of F. R. I. Assistance is given on numerous problems covering a wide field of uses of coal and other fuels. The field of consultations has covered : washability of coals, the installation of washeries, coal and coke for iron and steel industry, pulverised fuels, manufacture of electrode carbons, coking properties of coals, locomotive fuels, coal dust explosions, spontaneous combustion, soft coke manufacture, mine-air and mine-water investigation, etc. In addition, analyses of coal, coke, etc., are also undertaken for collieries, industry, railways and the like. The Institute works in collaboration with the Geological Survey of India and the Coal Board. Representatives of these bodies serve on the Advisory Committee of the Fuel Research Institute.

Publications :

The technical papers contributed by staff of F. R. I. number 100. A quarterly bulletin, "FRI News" is published by the Institute, in which recent activities are reviewed.

THE HARCOURT BUTLER TECHNOLOGICAL INSTITUTE, KANPUR.

Brief History :

On the recommendation of the Indian Industrial (Holland) commission this Institute was started in 1921 under the name of Harcourt Butler Technological Institute, Kanpur, after the name of the then Governor Sir Harcourt Butler.

In the beginning, a three years Diploma Course for B.Sc., students was started in two sections, *viz.*, (1) Chemical Research and (2) Oil Chemistry and Technology. In 1922-22, leather section was added and in 1926 Sugar Section was also started. In 1928 admission qualifications were lowered to I.Sc., but in 1932, the standard was again raised to B.Sc., but period of training was reduced to 2 years. Another two years Research Course after the Associationateship Diploma course was also started for the award of Fellowship. In 1933, leather section was abolished for want of sufficient number of students and equipment. Short Courses in oil and sugar were introduced. In 1936 sugar section was transferred to the Government of India. Since 1936, General Research Section and Oil Section only have been working in this Institute.

Organisation and Administration :

The Institute is run by the Government of the Uttar Pradesh under the Industries and Commerce Department. It has got an Advisory Committee which represents Universities, Industry and the Government. The State Government administers the Institute on the recommendation of the Advisory Committee through the Director of Industries and Commerce U. P. A Board of studies of the Institute helps the Advisory Committee in reviewing the Research and teaching activities of the Institute.

The two sections of Chemical Technology and General Research and Oil Technology are run by the Head of the Chemical Technology General Research Section who is also the Industrial Chemist to the U. P. Government and the Head of the Oil Section who is also the Oil Expert to the Government respectively. The Dy. Director of Industries (Education) works as principal, whose post in the grade of Rs. 1,500—2,000 is kept in abeyance and is at present held by the Director of Industries *ex-officio*. There are two lecturers and Research Chemists who are gazetted officers and 7 Technical Research Assistants, etc., to help them in the teaching and research work.

Recently Research Chemist (Plastics) and Research Chemist (Essential oil) have been provided to the General Research Section. The institution has got a small workshop under the foreman. Mechanical and Electrical Engineering and drawing classes are taken by the staff of the Indian Institute of Sugar Technology as almost all of our workshop equipment was transferred to this Institute in 1936. The post of the workshop Superintendent is kept in abeyance.

Activities :

Teaching and research work are the main activities of the Institute :

(1) Teaching :

Students have been increasing from year to year as is evident from the figures given below :—

Year		Applications received.	Students admitted.	Total No. of students on roll.
1949-50	...	100	30	53
1950-51	...	90	27	41
1951-52	...	100	27	39
1952-53	...	100	24	45

Many students are rejected at the time of admission for want of space, equipment and staff. From the admissions it is evident that there is a very great demand for technical education in the Institute which is the premier technological training centre for science graduate students. Admissions were restricted this year due to shortage of space, equipment, etc.

The total number of students, trained so far is 743, out of which about 421 got diploma in Oil Technology and 70 in General Research and Chemical Technology Section and the rest in Sugar and Leather technology. More than 95 per cent of the students have been absorbed in the industry and some of them have also started their own factories in U. P. and outside. Several of them are occupying high positions both in the Government department and in the industry.

(2) Research Work:

The number of research problems solved amounts to a few hundreds and a number of them have been published in the departmental bulletin and different Indian Foreign scientific and technical journals. These problems are mainly of industrial importance and have helped in solving the difficulties of the industries and in introducing new processes of working.

1. *Entrance qualification*.—B.Sc. for Associateship course. A.M.B.T.I., for fellowship course.

2. *Duration of course*.—2 Years for each course.

3. *Strength*.—Total No. of students on roll at present is 46.

4. *Financial Statement (Budget)*.—The Institute is run by The Provincial Government with an annual budget of (1952-53) Rs. 2,12,400.

5. *Subjects for Post-Graduate*.—A copy of detailed prospectus for oil and chemical technology and G.R. Section is attached herewith.

6. Besides the following scholarships are awarded by the Institute annually.

Associateship course :

1st year oil section :

2 Scholarships of Rs. 25 p. m. each tenable for 10 months in each Session.

2nd year Oil Section :

2 Scholarships of Rs. 25 p. m. each tenable for 10 months in each Session.

1st year General Research Section :

1 scholarship of Rs. 25 p. m. tenable for 10 months in each Session.

2nd year General Research Section :

1 scholarship of Rs. 25 p. m. tenable for 10 months in each Session.

Fellowship course (Oil Section) :

1 scholarship of Rs. 100 for 1st year for 12 months.

1 scholarship of Rs. 100 p. m. for 2nd year for 12 months.

Fellowship course (G. R. Section) :

1 scholarship of Rs. 100 p. m. for 1st year G. R. student for 12 months.

1 scholarship of Rs. 100 p. m. for 2nd year G. R. student for 12 months.

The Government of India awards a few scholarships of Rs. 150 p. m. annually for Factory Training.

In addition to these, the U. P. Scientific Research Committees also gives annually some grant for experiment and researches and a few scholarships of Rs. 150 p. m.

**INDIAN AGRICULTURAL RESEARCH INSTITUTE,
NEW DELHI**

The Indian Agricultural Research Institute which was originally established at Pusa (Bihar) partly out of the donation of an American Philanthropist, Mr. Henry Phipps was transferred in 1936 to its present home in New Delhi following the great Earthquake of Bihar in January, 1934 which completely wrecked the main building of the Institute.

The Institute is under the administrative control of the Director and is fully equipped with laboratories, a museum, herbaria, and an up-to-date scientific library. The activities of the Institute are mainly directed towards research and training which are carried out through six Divisions at present, *viz.*, Agronomy, Agricultural Engineering, Botany, Soil Science and Agricultural Chemistry, Mycology and Entomology and two permanent sub-stations, *viz.*, Botanical sub-station, Pusa and Agricultural Research sub-station, Karnal.

As regards research, the Institute deals, as a rule, with problems of general or all-India importance, or with problems which cannot be studied properly or conveniently by provincial departments. Facilities are afforded to a limited number of research workers competent to carry out definite pieces of research within the purview of the activities of the Institute. Within comparatively the short period of its existence the Institute has already won an International reputation as being the centre of advanced training and research in various branches of Agricultural Science by its record of achievements in evolving the world famous N. P. Wheats, Co. Canes and other improved varieties of crops which have established complete supremacy all over the country by ousting the local varieties previously grown. Evolving high-yielding and disease-resistant strains increasing the milk yield of the Sahiwal herd saving the crops from the ravages of pests and diseases producing improved agricultural implements suitable for the country as a whole are some of the items of work that are in progress.

On the educational side, it serves the purpose of a higher teaching institution, providing two-year post-graduate courses for selected graduates of provincial agricultural colleges and distinguished science graduates of Indian Universities. Specialised courses were started in November 1923 with the object of training students in methods of research and fitting them for

appointment to the superior posts in the service. A tuition fee of Rs. 25 per mensem is levied from students, which includes residential accommodation in the Hostel, but a separate charge of Rs. 5 per mensem is charged for consumption of electrical energy and water. Students who successfully complete the two-year course are awarded the Diploma of the Associateship of the Indian Agricultural Research Institute under three classes, *viz.*, First, Second and Third on the basis of the marks obtained at the theoretical and practical examinations and on the thesis. The Institute has been recognised by most of the Universities in India for presentation of thesis for higher research Degrees.

The Institute performs another very important function in so far as it supplies information and advice on agricultural topics to all who care to ask for it.

The Central College of Agriculture which runs a 3-year course leading to the B.Sc. (Hons.) Agri. degree of the Delhi University has been integrated with this Institute since July, 1951.

Both the I.A.R.I. and the Central College of Agriculture are wholly financed by the Central Government.

No scholarship or stipend is granted by the Institute. Copies of prospectus complete with all relevant information, syllabi of studies and the prescribed application form for admission can be had of the Manager of Publications, Civil Lines, Delhi at a cost of As. 10 per copy.

Sl. No.	Name.	Qualifications.	Appointment.
1.	Dr. Pal, B. P.	M.Sc., Ph.D., FLS., FBS., FNI.	Director.
2.	Dr. Mirchandani, T. J.	M.Sc., Ph.D., AIISc	Head of the Division of Agronomy.
3.	Dr. Narayanan, E. S.	M.A., Ph.D., DIC., FRES., FESI.	Head of the Division of Entomology.
4.	Dr. Vasudeva, R. S.	Ph.D. (Lond.), D.Sc. (Lond.), DIC., FNI.	Head of the Division of Mycology.

Sl. No.	Name.	Qualifications.	Appointment.
5.	Dr. Raychaudhury, S.P.	Ph.D., D.Sc.(Lond.) and (Cal.)	Head of the Division of Chemistry.
6.	Shri Ramiah, R.V.	B.E.(Mech.), M.Sc. MASAE.	Head of the Division of Agri. Engg.
7.	Dr. Asana, R.D.	M.Sc., Ph.D., DIC.	Head of the Division of Botany.
8.	Dr. Tamhane, R.V.	B.Ag., Ph.D.	Soil Survey Officer.
9.	Shri Sen, S.	M.Sc.	Agronomist.
10.	Shri Chandnani, J.J.	M.Sc.(Ag.)	Agronomist.
11.	Shri Khan, A.R. ...	B.Sc.(Ag.), M.Sc. (Wis.), P. G. Agronomy.	Agronomist.
12.	Dr. Mukherjee, S.	M.Sc., D.Sc.	Systematic Entomologist.
13.	Dr. Pradhan, S.	M.Sc., Ph.D.(Lond), D.Sc., FRES., FESI.	Insect Ecologist.
14.	Dr. Das, N.B.	M.Sc., Ph.D.	Biochemist.
15.	Dr. Gulati, K.C.	M.Sc., Ph.D.	Organic Chemist.
16.	Dr. Dakshinamurthy, C.	M.Sc., D.Sc., Ph.D.	Experimental Physicist.
17.	Dr. Bhaduri, P.N.	M.Sc., Ph.D., FNI.	Cytogeneticist.
18.	Dr. Chatterjee, D.	M.Sc., Ph.D.	Systematic Botanist.
19.	Shri Deshpande, R.B.	M.Ag., Assoc. IARI.	Geneticist.
20.	Dr. Chona, B.L.	B.Sc., Ph.D.(Lond.) DIC.(Lond.)	Systematic Mycologist.
21.	Dr. Murty, G.S.	M.Sc., Ph.D., Assoc. IARI.	Wheat Breeder.
22.	Dr. Prasada, R.	M.Sc., D.Sc.(Agra)	Mycologist.
23.	Dr. Vyas, N.D.	L.Ag., M.Sc., Ph.D.	Soil Microbiologist.
24.	Shri Malkani, T.J.	M.Sc.	Plant Physiologist.
25.	Shri Idnani, M.A.	B.Sc., Assoc. IARI.	Fertilizers Technologist.

**INDIAN INSTITUTE OF PHILOSOPHY,
AMALNER, EAST KHANDESH**

The Indian Institute of Philosophy is mainly a research Institute. It was founded in 1916 by Seth Motilal Maneckchand of Amalner, with the help of his friend Seth Vallabhadas. Its object is to encourage persons who have already studied western philosophy to get a first-hand acquaintance with Indian thought in general, and with the Advaitic system of Vedanta in particular.

The Institute has quite an up-to-date library of philosophical books. It contains the latest writings of western thinkers of eminence as well as a good number of Sanskrit and Marathi books in Indian Philosophy. Every attempt is made to enable workers to get access to the best Indian and Western Philosophical thought, both through books and journals.

The research is conducted by fellows who are selected every year in the month of June. The selected candidates join on the 1st of July and hold the fellowship for one academic year only. Extension for one or more years is given only to those who have shown a real aptitude for independent thinking during this period. The minimum qualifications required of a fellow are the possession of a high degree in Philosophy of some recognised Indian University and some knowledge of Sanskrit. The monthly scholarship amounts to Rs. 100 plus Rs. 20 as Dearness Allowance. Hostel accommodation is free. There are only six fellowships available every year.

There is also provision for teaching European philosophy through the medium of Marathi or Hindi. Only those who have passed the final Shastri examination in Vedanta are taken as Vidyarthi for this purpose. Each Vidyarthi receives approximately Rs. 75 per month including Dearness Allowance. There are only five such scholarships available.

The permanent staff of the Institute consists of the following: (1) Prof. G. R. Malkani, Director, (2) Prof. M. R. Oak, M.A., (3) Prof. Atmaram Shastri Jeri.

The subjects in which facilities for study and research are provided include Metaphysics, Logic, Indian Philosophy, Ethics and Philosophy of Religion.

INDIAN INSTITUTE OF SCIENCE BANGALORE-3

Introduction

The Indian Institute of Science owes its origin to the munificence of the late Mr. J. N. Tata whose scheme of establishing a Research Centre materialised after his death by the generosity of his two sons, the late Sir Dorab Tata and the late Sir Ratan Tata. These benefactors received the support of the Government of India and the Government of Mysore.

The Laboratories of the Institute provide facilities for post-graduate research in Inorganic, Physical, Organic and Biochemistry, Physics, Aeronautical Engineering, Internal Combustion Engineering, Metallurgy, Power Engineering, Electrical Communication Engineering, Chemical Technology and Chemical Engineering. There is also provision for post-graduate instruction and training in Aeronautical Engineering, Metallurgy, Power Engineering, Electrical Technology, Electrical Communication Engineering, Chemical Technology and Chemical Engineering ; and for the teaching of Economics and Social Sciences, French and German. All the Departments are well equipped and adequately staffed. The Library contains about 46,227 volumes of current Journals and Books.

Admission of Students, Courses of Study and Research, Payment of Fees, etc.:

1. Applications for admission to the Institute should in the first instance be made in writing to the Registrar.

2. Every application for admission should be made on a prescribed form duly completed and signed by the applicant and the applicant's parent or guardian and should be accompanied by a non-refundable fee of Rs. 2 in respect of each application.

3. No student shall be admitted except by the Senate after consideration of his application for admission and the recommendation of the Head of the Department to which he has applied to become attached.

(N.B.—If the candidate desires his application to be considered by more departments than one, he should fill in separate forms, indicating the order of his preference in the space provided. The same

order of preference should be indicated on all copies of the application ; otherwise it is liable to be rejected. Applications together with the non-refundable fee of Rs. 2 for each application must reach the Registrar before 15th June. If the amount is sent by Postal Order, it should be made payable to "**The Registrar, Indian Institute of Science, Bangalore-3**" and crossed ; if sent by Money Order, the Money Order receipt should invariably accompany the application. No application will be considered unless (i) all the columns of the form are properly filled in and the candidate's and his/her parent's guardian's signatures are also affixed in the spaces provided for and (ii) accompanied by a certified abstract of the marks obtained by the candidate at the qualifying examination. Evidence in original of the date of birth preferably the Matriculation or Secondary School Leaving Certificate should be produced at the time of joining the Institute and the Degree/Diploma Certificates in original at the commencement of the second term. The receipt of applications will be acknowledged only on addressed postcards if enclosed with the applications.)

4. The minimum qualifications for admission are :—

B.E. } I or II class

M.Sc. }

B.Sc. (Honours) (3 year course) I or II class

B.Sc. (Honours) (2 year course) I class.

B.Sc. I class or Distinction with not less than 60 per cent marks in the aggregate.

5. Research workers who possess the minimum qualifications prescribed for admission to the Institute and who are sponsored by Universities, Institutes, or other public or industrial organisations may be permitted to work in the laboratories at the Institute for periods of not more than four months at a time by the Head of the Department concerned who shall report such permissions to the Senate. No such worker shall, however, be permitted to work for two such periods consecutively. All such workers shall be required to conform to the rules of discipline in the Institute and to deposit each a sum of Rs. 75 only.

6. A student may be required to leave the Institute at any time, should his/her conduct or work not prove satisfactory, or should the Senate be of opinion that he/she is incapable of taking advantage of the facilities for study and research provided in the Institute.

7. (i) No person can continue to be a student in the Institute for a period longer than four years. Should the head of a department consider an extension of the above period necessary in the case of a student, he shall submit to the Senate his recommendation in this behalf together with the reasons therefor. The Senate may, on the recommendation of the head of the department concerned, permit a student to continue in the Institute for such further period as may be determined, provided that no studentship or scholarship, shall be awarded to the student during the period of such extension, unless there be vacancies.

(ii) In the case of holders of scholarships awarded by the Central and State Governments or other fellowships, the period during which a student holding such scholarships/fellowship can be permitted to work in the Institute be in conformity with the conditions of award of such scholarships/fellowships, subject, however, to the condition that such students shall be required to complete the work undertaken by them before the expiry of the above period and be subject to the rules of discipline at the Institute.

8. Students shall be required to produce certificates proving that they have undergone such training and attained such proficiency as may in the opinion of the Senate be required for admission to the particular department to which they wish to become attached. The Senate may prescribe any such additional test as it may deem necessary to prove a candidate's suitability for admission.

9. (i) Students shall be liable to make good any loss which they may occasion to the Institute by damaging apparatus, or other property or wasting material. Each student will be required on joining to deposit the sum of one hundred and fifty rupees to meet such liabilities or fines, or other dues including tuition fees, hostel and mess dues, and may be required to make up the deposit to its original amount in the event of any portion of it being applied for these purposes or any of them.

(ii) In the event of a student failing to make up the deposit to its original amount within one month of his/her being required to do so, he/she shall not be allowed to count the terms till the deposit is made up to its original amount, unless otherwise permitted by the Council on the recommendation of the Senate.

10. (i) Every student admitted to any of the Diploma Courses at the Institute shall pay a tuition fee of Rs. 12 per mensem. The tuition fee shall be paid in three instalments per year, at the rate of Rs. 48 per term within a fortnight of the commencement of the term.

(ii) If a student undergoing a Diploma Course discontinues after the end of July in any session he/she shall pay the entire fee for the session.

(N.B.—The tuition fee is payable for the full duration of the teaching portion of the Diploma Courses which in the case of Chemical Engineering is six terms; Metallurgy, and Aeronautical Engineering six terms, Electrical Communication Engineering and and Electrical Technology nine terms and Power Engineering six terms. Students who pay the tuition fees after the due date shall not be permitted to count the days in the term prior to the dates of payment of the fees, for the computation of the minimum attendance prescribe.)

11. Before a student is permitted to enter upon a course of specialised study or research he/she may be required to follow such course of instruction as may be considered necessary.

12. Transfers of students between the Diploma Courses in Electrical Technology and Electrical Communication Engineering may be allowed only on a mutual exchange basis.

13. *Diplomas (D.I.I.Sc.)* may be granted by the Council on the recommendation of the Senate to students who have satisfactorily completed a course of study approved by the Senate.

14. (i) *Associateship (A.I.I.Sc.)* may be awarded by the Council on the recommendation of the Senate to students and members of the teaching staff who have devoted five terms entirely to research work and who have presented an account approved by the Senate of such work. In addition, the Associateships may be awarded (i) to students and members of the teaching staff who produce satisfactory evidence of having been engaged in research work before joining the Institute and who devote three complete terms to research work at the Institute, and present an approved account of such work; and (ii) to students and members of the teaching staff who, having spent three complete terms in research work at the Institute, present after the lapse of not less than two years, an approved account of their researches.

(ii) Before recommending to the Council a candidate for the Associateship, the Senate shall select a suitable Referee or Referees and invite his/their opinion regarding the merits of the candidates. The opinion of the Referee or Referees shall be forwarded by the Senate to the Council along with its recommendations for the conferment of the Associateship.

15. (i) *Fellowships (F.I.I.Sc.)* may be awarded by the Council on the recommendations of the Senate and with the previous approval of the Visitor to Associates who satisfy the Senate of their having done five years of active work in any branch of Science or Learning and of their having done original and valuable research work, or of having otherwise contributed to the advancement of the scientific or industrial knowledge.

(ii) Before recommending to the Council a candidate for the Fellowship, the Senate shall elect two suitable Referees and invite their opinion regarding the merits of the candidate. The opinion of the Referees shall be forwarded by the Senate to the Council with its recommendation for the conferment of the Fellowship.

16. *The Honorary Fellowship* of the Institute may on the recommendations of the Council be conferred by the Visitor on persons who have attained eminence in the field of Science or Industry or who have rendered signal service to the Institute.

17. If the Council is satisfied that any person to whom a Certificate or Diploma of the Institute has been granted or on whom the title of Associateship or Fellowship has been conferred is guilty of dishonourable conduct, the Council may, with the previous approval of the Visitor, withdraw the Certificate, Diploma, Associateship or Fellowship granted to or conferred on, as the case may be, such a person. The Certificate, Diploma, Associateship or Fellowship withdrawn as aforesaid may be restored by the Council with the previous approval of the Visitor if for reasons, to be stated in writing, it considers desirable to do so.

No student is allowed to work simultaneously for any of the conferments of the Institute and degrees of universities.

18. Students of the Institute are expected to dress and conduct themselves in a proper manner. Heads of Departments may make such rules with regard to the dress of students working

in laboratories or in the neighbourhood as may be necessary in order to avoid accidents.

19. Students will be required to attend such laboratory and lecture courses as the Senate may prescribe and not to absent themselves from work without adequate reason. Applications for leave or absence shall be made in writing to the Head of the Department to which a student is attached.

20. *Attendance*.—A minimum of 75 per cent of attendance for the whole year is compulsory for the Diploma Course students. Research students may, however, take aggregate leave amounting to thirty-five working days to which may be added by those who attend the Indian Science Congress, the period of the meeting namely, seven days, and the days of travel to and from the Congress. Saturday will be regarded as a half day in connection with leave. Leave of absence to students shall be sanctioned by the Heads of Departments concerned.

Students who fail to put in the required number of days of attendance in any term shall not be allowed to count the term unless otherwise permitted by the Senate for reasons to be recorded in writing.

(c) Studentships and Scholarships :

1. *Studentships* of the value of Rs. 125 per month and *Scholarships* of the value of Rs. 80 per month are awarded to students by the Institute.

The minimum qualifications for the award of (i) *Studentships* is the A.I.I.Sc., or D.I.I.Sc. in addition to the minimum qualifications for admission in the case of Engineering Departments and A.I.I.Sc. or D.I.I.Sc. or M.Sc. with research in the case of the other Departments. (ii) *Scholarships* is B.Sc. (Honours) (3 year course) I class.

2. The awarded of Studentships is made for a period not exceeding one year at a time, the total period not exceeding five years.

3. The award of Scholarships is made for a period not exceeding one year at a time the total period not exceeding four years. The Senate may on special grounds to be recorded, extend the total period by one year.

4. Subject to review by Council, the Senate may on account of misconduct or unsatisfactory work withdraw a Studentship, Scholarship at any time and/or decide that a Studentship, Scholarship, be refunded from the date of the last award.

5. A Studentship/Scholarship holder shall be required to give an undertaking to refund to the Institute the amount of the Studentship/Scholarship paid to him/her in the event of his/her discontinuing studies at the Institute before the end of the first year of award.

6. Besides these Institute Scholarships, various State Governments award Scholarships tenable at the Institute. A large number of Scholarships is also awarded every year by the Sir Dorabji Tata Trust to poor and deserving students.

(d) Contribution towards travelling allowance on account of practical training and educational tour:

Educational tours are arranged every year and students who are sent on educational tour or who proceed for practical training are paid single third class railway fare each way. Transport from the Institute to the railway station will be provided if possible and where necessary the actual bus fare in the lowest class will be paid.

(e) Instruction in:

(i) French and German

Classes in French and German are held for students with a view to assisting them in attaining such knowledge of these language as would enable them to read technical books and journals. Magnetic Wire Recorder and Linguaphone facilities are also available for the study of foreign languages. The Diploma Course students will have compulsorily to attend 75 per cent. of the classes in French and German.

(ii) Economics and Social Sciences

This Section, started in 1947, provides background instruction in Industrial Economics and in Industrial Psychology. The courses of lectures are spread over the first two years of the Diploma Courses and a minimum of 75 per cent. at these lectures is compulsory for all Diploma Course students. It is intended to make the young technologists appreciate modern trends in

economics and human relations in order to utilise the human element involved in Industry to the best advantage of society and to enable the methods of studying fundamental sciences and engineering to be used with advantage in the study and practice of business administration. The studies in Economics include an understanding of economic institutions and functioning of industrial systems in the modern world and a knowledge of current economic problems such as natural resources, prices and production, industrial efficiency and economic planning. The course in Social Sciences covers important topics like psychology of behaviour with special reference to industry, statistical procedures and field survey methods, industrial relations, and industrial efficiency.

(f) The Journal of the Institute:

The Journal of the Indian Institute of Science is a scientific quarterly published in January, April, July and October. It embodies the results of scientific research work done by the various Departments of the Institute, the current volume in 1952 being Vol. 34. The annual subscription is Rs. 16 in India, Sh. 30 in the U. K. and £4 in the U.S.A.

(g) The Central Workshop:

The Central Workshop provides instruction in workshop practice to all students of the Institute including those of the Department of Power Engineering. Scientific apparatus, precision instruments and fittings required by the various Departments for their research will be made as far as possible in the workshop. A carpenter's shop also forms part of the Central Workshop.

In the case of students of Electrical Technology, workshop facilities are provided for design and actual construction of electrical apparatus, such as motors, generators, transformers, etc.

(h) The Library:

The Library of the Institute is one of the best equipped in the country for scientific literature. It procures journals, and periodicals from almost all the countries in the world and has at present 46,227 volumes including books and bound periodicals.

Translation Service.—Translations and photocopies of reports and articles in foreign scientific periodicals are supplied at a small

charge to investigators and institutions throughout the country for their use.

Students are aided in references and translations from foreign journals.

Photostat Service.—Photocopies of articles from scientific and technical journals available in the Library will be supplied at the following rates :

Annas 6 for 12-inch size copy.

Annas 8 for 18-inch size copy.

Annas 10 for 24-inch size copy.

Microfilms Service.—A Microfilm Reader and Projector are available for use in the Microfilm section of the Library.

(i) Extra-Curricular Technical Societies :

The following technical societies and associations are functioning in the Institute and conduct periodical meetings, lectures, colloquia, seminars and symposia :—

The Biochemical Society

The Chemical Engineering Association

The Electrical Engineering Society

The Mechanical Engineering Society

The Social Sciences Seminar.

The Electrical Engineering Society also publishes a journal called "*Electrotechnics*," and the Mechanical Engineering Society the "*Mechanical Engineer*."

Colloquia and Symposia including All-India Symposia on various topics are held at the Institute periodically.

(j) Hostel :

The Institute Hostel is under the control of a Warden, who is responsible to the Director for the management of, and the maintenance of order and discipline in, the Hostel. The Hostel is fully equipped and staffed.

There is accommodation for about 290 students and two blocks are under construction for accommodating 130 more

students. Applications for admission to the Hostel are entertained only after a student is admitted to the Institute. Students admitted to the Hostel shall, before occupation of the allotted seat, pay a mess deposit of Rs. 50 along with the rent for the room which is Rs. 12-8-0 per month in the case of single seated rooms and Rs. 10 per month in the case of other rooms.

The Hostel mess provides vegetarian and non-vegetarian food and is managed by the Students' Mess Representative Committee elected by the General Body of Boarders. The charges for board vary from Rs. 55 to Rs. 65 per month. All outstandings on account of Hostel and mess charges shall be paid before the end of the month following the one to which the charges billed for relate. In the event of the dues not being cleared within the period allowed, the defaulters are liable to be excluded from the mess and the Hostel. Their statutory deposits will also be adjusted towards the dues entailing the loss of terms till the deposits are made up to their original amounts.

(k) Institute of Science Gymkhana :

The Gymkhana is constituted to provide recreation and social amenities for students and officers of the Institute. The Director, the Registrar, the Librarian, the teaching staff and all the other Group I staff, the research staff and the students of the Institute are ordinary members of the Gymkhana who shall pay a subscription of Rs. 8 per year if paid in one instalment, or Rs. 4-4-0 per term if paid in two instalments. Attached to the Gymkhana are the Ranade Reading Room and Library, a Gymnasium, a Swimming Pool, a Rifle Club and the Gymkhana Stores. Members utilising the last named are required to deposit a sum of Rs. 15. The Gymkhana provides facilities for indoor and outdoor games, and conducts musical and rhetoric societies. The Institute of Science Gymkhana Magazine is published yearly.

(1) National Cadet Corps : Institute of Science, Electrical and Mechanical Engineering Section :

This unit with a present strength of fifty eight cadets was inaugurated in the first week of August 1951 by Dr. John Matthai, the President of the Court of the Institute. Periodical parades are held. There are classes of two hours duration each on three days in a week. The course of training includes regimental training, lectures on wireless, map reading, message writing, etc. Annual training camps and periodical educational tours are also arranged.

SUBJECTS OF STUDY IN THE DEPARTMENTS AT THE INSTITUTE**I. General Chemistry :**

Research in Physical and General Chemistry :

- (a) Catalysis
- (b) Colloid Chemistry
- (c) Electro-chemistry

Research in Inorganic and Mineral Chemistry

- (a) Upgrading of ores
- (b) Polarography
- (c) Sulphur Oxides.

II. Organic Chemistry :

Research in :

- (a) Coal-tar Products
- (b) Essential Oils and Resins
- (c) Indian Medicinal Plants
- (d) Synthetic Drugs
- (e) Synthetic Terpenes
- (f) Theoretical Organic Chemistry
- (g) Unit Processes in Industrial Organic Chemistry
- (h) Wood-tar Products.

III. Biochemistry :

Research in :

- (a) Agricultural and Dairy Chemistry
- (b) Antibiotics
- (c) Chemistry of Sanitation
- (d) Cytogenetics
- (e) Enzymology
- (f) Fermentation Technology
- (g) Food Technology and Nutrition
- (h) Pharmacology.

IV. Physics :

Research in :

- (a) Magnetism and Magneto-optics
- (b) Optics
- (c) Physical Mineralogy and Crystallography
- (d) Spectroscopy
- (e) Ultrasonics and Acoustics
- (f) X-rays and Electron Diffraction.

V. Aeronautical Engineering :

- 1. Diploma Course
- 2. Research in :
 - (a) Aero-and Hydro-dynamics
 - (b) Structures as applied in Aviation
 - (c) Mechanics of Flight
 - (d) Airplane Instruments.

VI. Internal Combustion Engineering :

Research in I. C. Engineering :

- (a) Development of New Engine Types with special attention to Indian Fuels and Materials.
- (b) Investigations in design details of fundamental nature, fuels and lubricants.
- (c) Research in Combustion and Heat Transfer as applied to Internal Combustion Engineering.
- (d) Development work in Gas Turbine Techniques and all relevant subjects.

VII. Metallurgy :

- 1. Diploma Course.
- 2. Research.

VIII. Power Engineering :

1. Diploma Course in Electrical Technology (Heavy current).
2. Postgraduate Course in Power Engineering (Electrical, Mechanical, and Civil).
3. Research in :
 - (a) High Voltage Engineering
 - (b) Industrial Application—Electrical Machines and Apparatus
 - (c) Transmission Line Engineering
 - (d) Hydraulic and Hydro-electric Engineering
 - (e) Mechanical Engineering—Heat Transmission, Power Plant Engineering
 - (f) Materials Testing.

IX. Electrical Communication Engineering :

1. Diploma Course
2. Research in :
 - (a) Electronic Engineering
 - (b) Radio and wire communications
 - (c) Electro-acoustics.

X. Chemical Technology and Chemical Engineering :

1. Diploma Course in Chemical Engineering.
2. Research in Chemical Engineering operations, Fuels and Applied Chemistry.

VISITOR**The President of India****DIRECTOR**

M.S. Thacker, B.Sc. (Engg.) (Bri'l), M.I.E.E.,
 Fel.Am.I.E.E., M.I.E. (Ind.), M.Inst.F., A.M.I.R.E.,
 M.I.M. (Lond.), M.Ind.I.M., M.Elec.Chem.S.Fel.A.Sc., etc.

REGISTRAR

A. G. Pai, M.A. (Agra and Camb.)

DEPARTMENT OF GENERAL CHEMISTRY

H. E. H. the Nizam Professor of Inorganic and Mineral Chemistry and Head of the Department

K. R. Krishnaswami, D.Sc.(Lond.), F.R.I.C., F.N.I.,
F.A.Sc., M.M.G.I.

Assistant Professor (General and Physical Chemistry)

(Vacant)

M. R. Aswathanarayana Rao, D.Sc.(Madras), F.R.I.C.
Lecturer (Colloid Chemistry)

T. L. Rama Char, M.Sc., Ph.D.(Dacca), M.Electrochem.S.,
A.M.I.I.Chem.E., A.R.I.C., A.Inst.P., M.I.Met.
Lecturer (Electro-Chemistry)

C. C. Patel, M.Sc., Ph.D.(Bom.)
Lecturer (Inorganic Chemistry)

R. S. Subramanya, M.Sc.(Mys.)
H. H. the Maharaja of Travancore Lecturere in Applied Chemistry

Lecturer (Technical Gas Reactions and Industrial Catalysis)
(Vacant)

Research Assistants

A. R. Vasudeva Murthy, M.Sc.(Mys.)
N. H. Sivaramakrishnan, M.Sc.(Banaras)
(Vacant)
(Vacant)

DEPARTMENT OF ORGANIC CHEMISTRY

(Vacant)

Professor and Head of the Department

B. H. Iyer, M.Sc., Ph.D.(Bom.), A.I.I.Sc., F.R.I.C.
Lecturer (Organic Chemistry)

M. S. Muthanna, M.Sc., Ph.D.(Madras), A.I.I.Sc.
Lecturer (Terpene Chemistry)

Lecturer (Drug Chemistry)

(Vacant)

Research Assistants

M. V. Bhatt, B.Sc.(Madras), A.I.I.Sc.
S. S. Guha, M.Sc., Ph.D.(Bom.)

DEPARTMENT OF BIOCHEMISTRY

K. V. Giri, D.Sc.(Cal.), A.I.I.Sc., F.A.Sc., F.R.I.C.
Professor and Head of the Department

(Vacant)

Assistant Professor (Fermentation Technology)

M. Sirsi, M.B. & B.S., L.T.M.
Assistant Professor (Pharmacology)

(Vacant)

Assistant Professor (Food and Nutrition)

Vacant)

Lecturer

M. K. Subramaniam, D.Sc.(Madras), F.A.Sc.
Lecturer (Cytogenetics)

P. L. Narasimha Rao, M.Sc.(Annamalai), Ph.D.(Bombay)
Lecturer Antibiotics

S. C. Pillai, Ph.D.(Madras), A.I.I.Sc., A.R.I.C., M.R.San.I.
Lecturer

Research Assistants

R. Rajagopalan, B.Sc.(Hons.) (Rang.), Ph.D.(Bom.), A.I.I.Sc.,
A.R.I.C.

A. S. Ramaswamy, B.Sc., M.B.&B.S.(Mys.)

T. A. Venkitasubramanian, M.Sc.(Madras), Ph.D.(Madras)
A.I.I.Sc.

S. Natarajan, B.Sc.(Pharm.)(Madras)

B. Ranganathan, B.Sc.(Hons.)(Mys.); M.Sc.(Bom.); Ph.D.(Bom.)
S. Balasundaram, B.Sc.(Madras), A.I.I.Sc.

DEPARTMENT OF PHYSICS

R. S. Krishnan, M.A., D.Sc.(Madras), Ph.D.(Camb.), F.A.Sc.,
F.N.I.

Professor and Head of the Department

Vacant

Assistant Professor

S. Ramaseshan, M.Sc.(Nag.), A.I.I.Sc., D.Sc.(Nag.)

Lecturer

Lecturer

(Vacant)

Research Assistants

P. S. Narayananan, M.A., M.Sc., (Madras) Ph.D. (Madras).
(Vacant)

DEPARTMENT OF AERONAUTICAL ENGINEERING

O. G. Tietjens, D.Phil. (Gottingen)

Professor and Head of the Department

C. V. Joga Rao, B.Sc.(Engg.) (Banaras), M.S.(Standford),
Ae.E. (Cal. Tech.) Certificate of Proficiency in Aero-Engi-
neering (I.I.Sc.)

Assistant Professor (Structures)

Satish Dhawan, M.A.(Punjab), B.Sc. (Engg.) (Punjab), M.S.
(Minnesota), Ee.E. (Cal. Tech.), Ph.D. (Cal. Tech.)

Assistant Professor

Vacant

Lecturer (Aero-dynamics)

T. N. Krishnaswamy, B.E. (Mys.), Certificate of Proficiency in
Aero-Engg., (I.I.Sc.)

Lecturer (Design)

C. N. Lakshminarayana, B.E. (Mys.), D.I.I.Sc.

Lecturer

P. Srinivasa Row, M.Sc. (Cal.)

Lecturer (Instruments)

Arabindo Das, B.E.(Elec.), B.E.(Mech.) (Bengal), D.I.I.Sc.

Lecturer

Lecturer

(Vacant)

Lecturer (Structures)

(Vacant)

Technical Assistant

(Vacant)

Research Assistant

L. S. Srinath, B.E.(Mech.) (Mys.)

DEPARTMENT OF INTERNAL COMBUSTION ENGINEERING

H. A. Havemann, Dr. Jng. (Brunswick)

Professor and Head of the Department

M. R. Krishnamurthy Rao, B.E.(Mech.) (Mys.), A.M.I.E.

Assistant Professor

K. Mahadevan, B.E.(Mech.) (Madras)

Lecturer

A. V. Sreenath, B.E.(Mech.) (Mys.), A.M.I.E.(Ind.)

Lecturer

N. T. Gopaliengar, B.E.(Mech.) (Mys.), A.M.I.E.(Ind.)

Lecturer (Gas Turbines)

Research Assistants

N. N. Narayana Rao, B.E.(Mech.(Madras)

M. R. Raghavan, B.E.(Mech.) (Mys.)

Vacant

K. Narayanaswamy, B.Sc., B.E.(Mech.) (Mys.)

S. D. Mahulikar, B.E. (Mech. & Elec.) (Bom.)

M. A. Thirunarayanan, B.Sc. (Madras), B.E.(Mech.) (Mys.)

DEPARTMENT OF METALLURGY

Brahm Prakash, M.Sc. (Punjab), Ph.D. (Punjab), Sc.D. (M.I.T.)
Professor and Head of the Department

E. G. Ramashandran, M.Sc. (Mys.), Ph.D. (Sheffield)
Assistant Professor

J. Balachandra, B.Sc. (Annamalai), B.E. (Mys.)
Lecturer (Electro-Metallurgy)

N. R. Srinivasan, Ph.D. (Agra)
Lecturer (Mineralogical Chemistry and Ore Dressing)

D. L. Bhattacharyya, M.Sc. (Cal.), Grad. I.E.E.
Lecturer (Electron Optics)

Lecturer (Physical Metallurgy)

(Vacant)

Research Assistants

(Vacant)

V. R. Subramanian, B.Sc. (Hons.) (Mys.), D.I.I.Sc.

DEPARTMENT OF POWER ENGINEERING

Professor and Head of the Department

(Vacant)

Director in charge

Electrical Engineering

C. S. Ghosh, M.Sc. (Cal.), S. M. (M.I.T.), Mem. A.I.E.E.,
 Mem. I.E.S., M.O.S.A.

Professor of Electrical Engineering

I. N. Ramachandra Rao, M.Sc. (Cal.), A.M.I.E. (Ind.), Mem.
 A.I.E.E.

*Assistant Professor (Electrical Engineering—Transmission and
 Distribution)*

B. N. Narayanana Iyengar, B.Sc. (Hons.) (Mys.), Associate,
 I.E.E., A.M.I.E. (Ind.)

Assistant Professor (Electrical Engineering Design)

P. Venkata Rao, B.Sc.(Hons.) M.Sc.(Andhra), Cert. of Proficiency in Elec. Tech. (I.I.Sc.)
Lecturer (Electrical Engineering)

M. S. T. Narayanan, B.E. (Mys.), A.M.I.E.E., M.Am.I.E.E.
Lecturer (Electrical Engineering)

Research Assistants

S. Ganapathy, B.Sc. (Hons.), (Andhra), D.I.I.Sc.
 (Vacant)
 (Vacant)

High Voltage Engineering

G. K. M. Pfestorf, Dr. Phil. (Jena.)
Professor of High Voltage Engineering

D. J. Badkas, M.Sc. (Nag.), A.I.I.Sc., A.M.I.E. (Ind.)
Assistant Professor (High Voltage Engineering)

H. V. Gopalakrishna, B.Sc., B.E. (Mys.), A.M.I.E. (Ind.)
Lecturer (High Voltage Engineering)

N. Narayan, B.E. (Mys.), A.M.I.E. (Ind.)
Lecturer (High Voltage Engineering)

Research Assistants

(Vacant)
 (Vacant)

Civil and Hydraulic Engineering

N. S. Govinda Rao, B.E. (Mys.), M.A.C.I., M.I.A.H.R.,
 M.I.E.(Ind.)
Professor of Civil and Hydraulic Engineering

K. Seetharamiah, B.E. (Mys.), Cert. of Proficiency in Elec. Tech. (I.I.Sc.), A.M.I.E. (Ind.)
Assistant Professor (Civil and Hydraulic Engineering—Hydraulics)

G. Janaki Ram, B.A. (Madras), B.Sc. (Engg.) (Banaras),
 Certificate of Proficiency in Aero-Engineering (I.I.Sc.)
Assistant Professor (Structural Engineering)

C. N. Nagaraj, B.Sc., B.E. (Mys.)

Lecturer (Civil and Hydraulic Engineering)

Lecturer

(Vacant)

Research Assistants

S. K. Lakshmana Rao, M.Sc. (Mys.)

K. T. Sundararaja Iyengar, B.E. (Civil) (Mys.)

Mechanical Engineering

Professor of Mechanical Engineering

(Vacant)

A. Ramachandran, B.E. (Madras), M.Sc., Ph.D. (Purdue),
Jun. Mem., A.S.M.E.

Assistant Professor (Mechanical Engineering—Thermal)

Assistant Professor (Mechanical Engineering—Plant)

R. G. Narayana Murthy, B.E. (Hons.) (Madras), D.I.I.Sc. (A.E.),
D.I.C. (Mech. Engg.) (Lond.)

P. Srinivasan, B.Sc., B.E. (Mys.)

Lecturer (Mechanical Engineering)

Lecturers (2)

(Vacant)

Research Assistant

G. Sreekantiah, B.E. (Mech.) (Mys.)

DEPARTMENT OF ELECTRICAL COMMUNICATION ENGINEERING

K. Sreenivasan, B.Sc. (Mys.), A.I.I.Sc., M.I.E.E., Mem. A.I.I.E.,
S.M.I.R.E., F.A.Sc.

Professor and Head of the Department

B. S. Ramakrishna, B.Sc. (Andhra), M.Sc. (Banaras), Ph.D.
(Chicago)

Assistant Professor (Acoustics)

S. K. Chatterji, M.Sc.(Cal.), S.M.I.R.E.

Lecturer (Radio)

(Vacant)

Lecturer (Line)

V. Narayana Rao, M.Sc.(Mys.), M.Sc.(Tech.) (Manch.),
Grad.I.E.E., Dip.M.C.W.

Lecturer (Radar)

Research Assistants

K. Krishnan Nair, M.Sc. (Trav.), D.I.I.Sc.
G. B. Meemamsi, B.Sc.(Hons.) (Bombay), D.I.I.Sc.

**DEPARTMENT OF CHEMICAL TECHNOLOGY AND
CHEMICAL ENGINEERING**

*Professor of Chemical Technology with special reference to
Chemical Engineering and Head of the Department*

(Vacant)

Director in charge

S. S. Ghosh, M.Sc.(Cal.), A.M.I.I.Chem.E.,

Vacant

Assistant Professor

Lecturer

Lecturer

(Vacant)

Research Assistants

G. N. Bhat, M.Sc.(Bom.), A.I.I.Sc., D.I.I.Sc., A.M.I.I.Chem.E.,
A.M.Electro-Chem.S.

K. Shivaramaiah, M.Sc.(Tech.) (Banaras), A.I.I.Sc., D.I.I.Sc.

SECTION OF ECONOMICS AND SOCIAL SCIENCES

Director

Head of the Section

N. S. N. Sastry, M.A., D.Litt.(Mys.)

Assistant Professor (Social Sciences)

M. C. Munshi, M.A., D.Litt.(Bom.)

Assistant Professor (Industrial Economics)

Research Assistants

S. K. Ramachandra Rao, B.A.(Hons.), M.A.(Mys.)

P. D. Dasappa, B.A.(Hons.), M.A.(Mys.)

LIBRARY

B. V. Raghavendra Rao, D.Sc.(Madras)

Librarian

M. O. Thomas, M.A., Th.D.

Acting Librarian

MODERN EUROPEAN LANGUAGES

W. Graefe, Ph.D.(Leipzig)

Lecturer in Modern European Languages

HOSTEL

N. Kunchithapatham, M.A.(Madras)

Warden

DISPENSARY

M. N. Mahadevan, M.B.B.S., D.T.M., M.R.C.P.

Consulting Medical Officer

T. B. Subba Rao, L.M.P.(Mys.)

Resident Medical Officer

NATIONAL CADET CORPS, INSTITUTE OF SCIENCE, ELECTRICAL AND MECHANICAL ENGINEERING SECTION

Captain S. Mishra, M.Sc.(Allahabad), M.E.E.(Brooklyn),
A.M.I.R.E., M.Sigma xi, E.M.E.

Officer Commanding

2/Lt. G. Janaki Ram, B.A., B.Sc.(Engg.) (Banaras),
Certificate of Proficiency in Aero-Engg. (I.I.Sc.),
A.F.Ae.S.I.

Second-in-Command

2/Lt. C. N. Lakshminarayana, B.E.(Mys.), D.I.I.Sc.,
A.F.Ae.S.I.

Quarter Master Officer.

INDIAN SCHOOL OF MINES AND APPLIED GEOLOGY, DHANBAD

The Indian School of Mines was opened by the Government of India in 1926 and was established to provide high-grade instruction in Mining Engineering and in Geology along the lines of the courses of instruction given in the Royal School of Mines, London, and similar Mining Colleges in Great Britain. The School is situated at Dhanbad, the E. I. Rly., Junction for the Jharia Coalfield, a site which gives it a unique position specially suiting it for the purposes for which it was instituted. It is within easy reach of the Coalfields of Raniganj, Giridih, Bokaro and Jharia which are together responsible for 95 per cent of the output of coal in India. It is also reasonably near the Mica Fields of Hazaribagh, Gaya and Monghyr and the Iron, Copper and Chromite Mines of Singhbhum, all of which are in the Province of Bihar. The fact that this Province is probably richest in mineral deposits in India adds to the value of the position in connection with the courses of study in Geology.

Admission is competitive, there being an Entrance examination held each year. Provided a sufficient number of candidates comes forward the Entrance examination is held at various centres throughout India. Applications for admission must be made before 7th March on the appropriate forms obtainable from the Principal on or before 28th February. No candidate is ordinarily admitted if he is over 22 years of age on 1st January of the same year.

Every application for admission must be accompanied by the following :—

- (a) Educational certificates showing that the candidate has passed :
 - (i) the Intermediate examination in Arts or Science of an Indian University or an examination recognised as equivalent thereto with ENGLISH MATHEMATICS, PHYSICS AND CHEMISTRY (no other alternatives are acceptable.

Note.—Students from Osmania University are not required to pass the additional test in Theology or Morals for the purpose of this regulation ;

- or (ii) the Higher School Certificate examination of the Cambridge Local examinations Syndicate with Group III (Mathematics) or Group I (Natural Sciences) ;
- or (iii) (in the case of Matriculates) the final examination after a full three years' course at the Bengal or Bihar Evening Mining Classes ; non-matriculates are not eligible ;
- or (iv) the London University Matriculation in the subjects of English, Mathematics Physics and Chemistry ;
- or (v) Pre-Engineering examination of the Delhi Polytechnic.

Note.—Any candidate who has appeared or intends to appear at one of the above examinations, but has not been informed of the result may apply for admission. His application will be accepted provisionally and he will be permitted to take the Entrance examination if he is otherwise eligible. He will be required to furnish not later than the 31st May a certificate from the head of his college or any other satisfactory evidence of having passed one of the examinations specified above. Failure to furnish such certificate will render the candidate ineligible for admission even though he may have been permitted to sit for the entrance examination.

(b) A certificate of good moral conduct issued by the head of the college at which the applicant has been educated during the two years immediately preceding his application for admission ;

(c) A medical certificate in the prescribed form.

Copies of certificates attested by a Government Gazetted Officer will be accepted, except the certificates required by rules (b) and (c) which must be produced in original.

The following courses of study are provided :—

(a) Four-Year Course leading to the Diploma of Associateship in Mining-Engineering, A.I.S.M. (Min.)

(b) Four-Year Course, leading to the Diploma of Associateship in Applied Geology, A.I.S.M. (Geol.)

There is a Hostel attached and students arrange their own messes under the general guidance of the Hostel Superintendent.

The Institute is financed wholly by the Government of India and is under the administrative Control of the Ministry of Natural Resources and Scientific Research. The total number of students on roll at the beginning of the session 1952-53 is 163 (137 Mining and 26 Applied Geology.)

Fees, etc.

	Rs.	a.	p.
Entrance Examination fee	10	0	0
Admission fee	10	0	0
Caution Money Deposit (the balance of this is returnable to students) ...	50	0	0

Tuition Fees:

First Year—(in 2 equal instalments)	180	0	0
Second Year—(in 2 equal instalments)	180	0	0
Third Year—(in 2 equal instalments)	180	0	0
Fourth Year—(in 2 equal instalments)	180	0	0

Other Charges:

Consolidated monthly Hostel charges at present	8	4	0
Examination fee for the Diploma at the end of the Fourth Year	40	0	0

The session begins in July each year and lasts until 31st March in the following year with a short break during the Durga Puja holidays. During the long vacation each student is required to obtain practical experience in a mine, or (if taking the Geology Course), in the field, for at least 2 months.

Scholarships

The Government of India, and Provincial Governments award scholarships of values varying from Rs 30 per month to Rs. 75 per month. In most instances these are awarded on the results of the Entrance examination.

Department of Mines and Other External Examinations

Students who obtain the Diploma of Associateship in Mining Engineering obtain concessions in respect of the period of practical experience in a coal mine required from candidates for the Department of Mines examinations. The period of practical experience required is reduced by one year in the case of candidates for the Second Class Mine Manager's Certificates and by two years in the case of candidates for the Sirdar's Certificates and candidates for the First Class Mine Manager's Certificates. A similar reduction of 18 months is granted to students possessing the Diploma in Mining Engineering in respect of the examination for the Certificate of Competency as Mine Surveyors.

The Diploma of Associateship in Mining Engineering entitles the holder to a similar exemption, *viz.*, of two years, in respect of the examinations for First Class and Second Class Certificates of Competency under the British Coal Mines Act, 1911. Further, the School has been recognized by the University of London for the purpose of its B.Sc., Degree in Engineering (Mining).

Advisory Council

There is an Advisory Council on which the Director of the Geological Survey of India, the Chief Inspector of Mines in India, representatives of the Governments of India, Bengal and Bihar, and of various Mining and Geological interests serve.

Staff

Principal.—Rameshwar Prasad Sinha, Ph.D., (Min. Edin.) ; B.Sc. (Min. & Met. Edin.) ; Assoc. H. W. C. (Min. Eng.) ; Vans Dunlop Research Scholar (Edin.) ; First Class Certified Colliery Manager (U. K.) ; M.M.G.I.

and a highly qualified staff of Mining Engineers, Electrical and Mechanical Engineers, Geologists, Physicists, Technical Chemists, etc.

INDIAN STATISTICAL INSTITUTE, CALCUTTA

The Indian Statistical Institute was founded on 17 December 1931 and was formally registered under the Indian Societies Registration Act No. XXI of 1860 on 28 April 1932 with headquarters in Calcutta. Its objects are :

(1) To promote the study of statistics both pure and applied and allied subjects ; and

(2) To provide for research and instruction for the advancement of the study and dissemination of knowledge of statistics and allied subjects.

The Institute had its origin in and was a continuation of the Statistical Laboratory which began its work informally 14 or 15 years earlier in the Presidency College, Calcutta.

Membership and Management.—The membership of the Institute is open to all persons interested in statistics irrespective of sex, caste, creed, class or nationality. The ordinary membership fee is Rs. 20 per year for residents in India and Rs. 25 for others not resident in India. The life membership fee is Rs. 250.

The supreme controlling authority (which alone has the power to change the rules, etc.), is a General Meeting of the members assembled by proper notice. The management is vested in a Council consisting partly of representatives of provincial branches and partly of councillors elected annually by ballot by the members of the Institute.

Research and Training School.—The Institute has a Research and Training School which is maintained largely by a grant from the Government of India, and is administered since 1952-53 by a Governing Body consisting of members elected by the Council of the Institute and of representatives of the Government of India, the Inter-University Board, the Indian Economic Association, the Federation of Indian Chambers of Commerce and Industry, the Associated Chambers of Commerce of India, the National Institute of Sciences, and the Reserve Bank of India.

The School provides for a regular two year course of professional training in statistics extending over a period of two academic years of three terms each. The course is open normally to candidates who have already taken the master's degree

in statistics, mathematics, economics and allied subjects. The session begins in July. The students in the professional course usually take the examination for the Institute's certificate, and can proceed to the associateship of the Institute after a further period of study and research. The total number of students who sat for the final qualifying Examination in 1952 was 8 all of whom were successful. The number of students on the roll for the examination is 20 in the first year class and 17 in the second year.

Besides this, provision has been in existence since 1932 for special courses of training in statistics for officers coming from Government Departments, Universities and other recognised institutions. The duration of such courses varies from three months to one year or more according to individual needs. There were 5 officers on deputation during 1951-52.

A six-month course for the training of computers is also given. Classes are held in the evening and students are prepared for computer's certificate examinations conducted by the Institute. The number of students on the roll in this class during the session July to December 1952, is 41.

Research.—From the very beginning the Institute has been a strong centre of research in both theoretical and applied statistics. The unique feature of the work in the Institute has always been the close integration of research and training with statistical projects which the Institute has been handling on a large scale for a long time. The members of the teaching and research staff as well as students and trainees are closely associated with and actively participate in the project work.

The Institute has always attached great importance to fundamental research and its aim has always been to develop the mathematical theory in actual relation to practical problems. The total number of papers published and reports prepared by the workers of the Institute by the end of 1951 was over 400.

Visiting Professors.—The Institute has been inviting distinguished statisticians from abroad to work as Visiting Professors in the Institute and among those who have participated in the scheme may be mentioned R.A. Fisher (1938, 1945, 1951); H. Hotelling (1939-40); W.E. Deming (1947); W.A. Shewhart (1947-48); H. Wold (1949-50); A. Wald (1950); A. Linder (1951); J. B. S. Haldane, F. Yates, G. Rasch (1951-52).

Library.—The Institute Library has about 40,000 books on statistics and allied subjects and receives over 700 periodicals. It is probably the biggest working library in statistics in any single institution in any part of the world.

Statistical Laboratory.—There is a well-equipped Statistical Laboratory in the Project Section of the institute which is available for both training and research work. It has about 130 hand-calculating machines and punched card equipment 3 census sorters, 3 large tabulators, 2 multipliers (including one 602A), 4 summary and reproducing punches, 1 collater, and the IBM—101 electronic statistical machine, 80 punchers and verifiers, and one electrical punching and alphabetical machine. There is also a photographic section with micro-film and photostat equipment ; and a workshop with precision lathes, drills, milling and shaping machines.

3. *Statistical Projects.*—The planning of sample surveys and in some cases carrying them out in the field have formed a very big part of the work. Some of the important projects have been the five year scheme for improving the jute forecast in Bengal (1937—1941) followed by annual full scale crop surveys in Bengal (later, West Bengal) till 1950-51 and which was handed over to the West Bengal Government from June 1951 ; similar crop surveys in Bihar in 1943-44-45; crop cutting experiments on rice, jute, wheat, sugarcane and winter crops in various parts of India ; public preference survey in Calcutta, Jagaddal and Asansol labour enquiries in 1941-42; continuing enquiries into family budgets since 1940; survey of the after effects of Bengal famine in 1944 ; reconstruction of the Indian Census Tables for 1941 on a sample basis, and sampling studies based on census enumeration slips of India for 1941 ; survey of refugee population in West Bengal in 1948 anthropometric surveys of the United Provinces and Bengal, etc. Since 1950 the Institute has been in charge of the planning and the statistical work of the National Sample Survey of the Government of India which covers the whole of the country and is the biggest and most comprehensive sample survey in any part of the world so far. Practically all the sample surveys have been sponsored by either the Central or different State Governments of India.

Besides sample surveys the Institute has undertaken important projects in the study of rainfall and floods (some of which led to the Hirakud and Damodar Valley river schemes); agricultural field trials and the design of experiments ; biometrical

studies in anthropology and medical and health statistics ; education and psychology as well as much work in economic syatistics including national income.

The Institute has also done a good deal of work of numerical tabulation ; and is prepared to undertake such work on behalf of scientific institutions. The Institute has also undertaken enquiries and surveys on behalf of non-Government organizations and business concerns.

4. *Examinations in Statistics.*—The Institute conducts three examinations annually for the award of (1) The Statistician's Diploma, (2) The Computer's Certificate, Parts 1 and 2 ; and (3) Certificate for Field Siervey (Senior and Junior). The examinations are open to all persons fulfilling certain minimum requirements. The total number taking these examinations was 419 in 1951, of whom 201 passed in one or more papers.

5. *SANKHYA: The Indian Journal of Statistics*: This Journal is being published since June 1933 by the Statistical Publishing Society as the official organ of and in co-operation with the Indian Statistical Institute. Besides articles on theoretical and applied statistics, bibliographies of Indian statistical publications, numerical tables tending to reduce the labour of computations and book reviews are published in the journal. Contributions are welcome from all parts of the world. The journal is supplied free to the members of the Institute ; and the subscription for non-members is Rs. 30 in India and 60 shillings or 10 dollars outside India.

6. *International Statistical Education Centre*: Since October 1950 the Institute has been collaborating with the International Statistical Institute in running the International Statistical Education Centre in Calcutta under the auspices of the UNESCO, for the purpose of providing statistical training to persons in the countries of the Middle-South and Far East. The centre is located in the Indian Statistical Institute and the bulk of the teaching work is contributed by its research and training staff. The total number of trainees was 18 from 5 different countries in the first term (October 1950—April 1951) ; 37 from 10 countries in the second term (July to December 1951) ; and 40 from 12 countries for the third term which began in January 1952, the fourth term (July—December) is being attended by 37 trainees belonging to 9 different countries.

Financial arrangements.—The Institute received a block grant of Rs. 5,25,000 in 1951-52 for the Research and Training School from the Government of India. The Institute has also been receiving from 10 to 20 lakhs of rupees per year for statistical projects undertaken on behalf of Government. In addition the Institute has some income from membership dues, examination fees, etc.

Officers and Staff Administration

President	...	...	Sri C. D. Deshmukh
Treasurer	...	...	Dr. S. C. Law
Director	...	...	Professor P. C. Mahalanobis
Registrar	...	...	Professor K. N. Chakravarti

Heads of Departments

Research & Training	...	Dr. C. R. Rao
National Sample Survey	...	Sri S.B. Sen and Sri N. C. Ghosh
Crop Surveys	...	Sri J. M. Sen Gupta and Sri S. Raja Rao
Machine Tabulation Section	...	Sri N. C. Dutt
Field Work	...	Sri P. K. Chatterjee.

The total number of other workers varies from year to year depending on the number and nature of applied projects in hand. During the 3 years 1949, 1950, 1951 the average number was nearly 600, inclusive of about 250 in the statistical and 350 in the field branch. There is a Provident Fund, a Medical Unit, and a Canteen for the workers.

INSTITUTE OF NUCLEAR PHYSICS**92, Upper Circular Road, Calcutta-9***Brief History :*

The Institute of Nuclear Physics is a newly established Institute which carries on research in several branches of Nuclear Science and also imparts teaching on the subject to M.Sc. students of the Calcutta University. The Institute has grown out of the Laboratory of the Palit Professor of Physics of the University College of Science, Calcutta. Its first nucleus was formed when the Calcutta University received a gift of Rs. 60,000 from the Trustees of the Sir Dorabji Tata Trusts of Bombay towards the purchase of parts of a Cyclotron Machine. The Calcutta University supplemented this gift by an equal amount and proceeded to construct a small building for housing the Cyclotron. The foundation-stone of the present building of the Institute was laid on April 21, 1948 by Dr. S. P. Mookerjee, then Minister of Industry and Supply in the Central Government, and the Institute was formally opened by Madame Irene Joliot Curie, the world-renowned physicist, in the presence of a distinguished gathering of scientists and eminent local citizens.

Administration :

The Institute is run by a Governing Body composed of the following members :

- (1) The Vice-Chancellor of the Calcutta University, Chairman (*Ex-officio*).
- (2) The Director, Institute of Nuclear Physics, Vice-Chairman (*Ex-officio*).
- (3) One Professor of Physics or Applied Physics of the Calcutta University (to be nominated by the Syndicate of the Calcutta University for a period of three years.)
- (4) One of the Donors to the Institute of Nuclear Physics (to be nominated by the Syndicate of the Calcutta University for a period of three years.)
- (5) One representative of the Ministry of Natural Resources and Scientific Research of the Government of India (to be nominated for a period of three years.)

- (6) One representative of the Atomic Energy Commission of the Government of India (to be nominated for a period of three years.)
- (7) One representative of the Ministry of Education, Government of India (to be nominated for a period of three years.)
- (8) The Accountant General, Government of West Bengal (*Ex-officio.*)
- (9) One Science representative of the Inter-University Board of India (to be nominated for a period of three years.)

Professor Meghnad Saha, Director of the Institute, is a life-member of the Governing Body.

Aims, objectives and activities of the Institute :

The Institute has the two-fold objectives of "Teaching and Research in the Nuclear Science." Calcutta University has been giving, ever since 1939, an elementary course in Nuclear Physics which is compulsory for all students proceeding for their M.Sc. degree and also an advanced course which is allowed to selected M.Sc. candidates as a special paper. The Institute gives instruction to about 40 students every year in the elementary course and to about 10 students every year in the advanced. But the scope and extent of this training is of a limited character and consequently an appreciable gap remains between the completion of the M.Sc. course and the attainment of the ability for undertaking research work in some branch of Nuclear Physics. The Institute has therefore prepared a scheme for a one-year post-M.Sc. diploma course in Nuclear Physics. The scheme has been sanctioned by the Government of India, and launched from January, 1953. A separate one year Post-M.Sc. Diploma course has also been prepared for (1) Persons who are M.Sc.'s in Physics, but wish to be trained for the application of Physics and Nuclear Physics to medicine ; (2) Persons who have a basic knowledge of medicine but want to learn the experimental technique of Nuclear Physics for application to clinical problems.

The work of the Institute is now grouped under the following headings :

- (1) Administration (including Library & Stores.)

- (2) Cyclotron (Nuclear Reactions.)
- (3) Spectroscopy.
- (4) Cosmic Rays.
- (5) Instrumentation (including Workshop and a section on Electronics.)
- (6) Chemistry of isotopes and radioactive nuclei.
- (7) Biophysics.
- (8) Theoretical Physics.

At present the Cyclotron and Biophysics divisions are sufficiently developed and they are under Readers. The Government of India have been approached for raising their grants so as to enable the Institute to raise the other departments immediately to the rank of the Cyclotron and Biophysics divisions ; without which the full research programme of the Institute cannot be given effect to.

Library:

The work of organising the library has been started very recently. The library is housed in a big, well furnished hall with two tiers. But due to paucity of funds, it has not yet been possible to build up an adequate basic stock of books, although the library possesses a fairly good collection of standard periodicals. It receives regularly about 50—60 journals—through subscription, exchange and gifts—and nearly 40 other journals irregularly.

Income:

The Institute is maintained, at present, out of grants received from the Calcutta University, the Atomic Energy Commission, the Central Ministry of Education and the Ministry of Natural Resource & Scientific Research. For the year 1952-53, the following grants were received from the above sources:

	Rs.
A. Atomic Energy Commission	62,000
B. Ministry of Education	40,000
C. Ministry of Natural Resources and Scientific Research	1,07,750
D. Calcutta University	56,600
	(exclusive of Rs. 36,000 for the Palit Staff.)

In the initial period, the Institute also received a number of private donations which are mentioned below :

	Rs.
Tata Sons (1941—48)	90,160
Birla Bros. (1944—48)	60,000
Dr. B. C. Law (1948)	17,500
Rai Bahadur R. P. Saha (1947)	45,000
	<hr/>
	Rs. 2,12,660

Forty per cent of the seats in the Post-M.Sc. diploma course is reserved for students from states other than West Bengal.

Staff :

Administration

(a) Office

Director (Hony.)
Dr. M. N. Saha, D.Sc., F.R.S., F.R.A.S.B., F.N.I.

Administrative Officer.
Sir S. S. Chuckerbutty.

(b) Workshop

Workshop Superintendent.
Sri G. N. Sarkar, M.Sc.

(c) Stores and Procurement

Procurement Officer.
Sri K. S. Manian.

(d) Library

Librarian.
Sri K. Bhattacharyya, B.Sc. (Hons.), Dip. Lib. (Cal.)

Division of Cyclotron

Sur Reader :
Dr. B. D. Nagchaudhuri, M.Sc., Ph.D. (Calif.)
Sri S. K. Mukherjee, M.Sc. (High Vacuum Technique).

Sri P. K. Dutt, M.Sc., (High Vacuum Technique).
Sri S. B. Kar, M.Sc., (High Vacuum Technique).
Sri A. P. Patro, M.Sc., (Nuclear Fission)
Sri B. Basu, M.Sc., (Cyclotron).
Sri B. K. Bhattacharyya, M.Sc., (Cyclotron)
Dr. S. K. Sen, M.Sc., D.Phil. (on study-leave in U. K.)

Division of Biophysics

Reader :

Dr. N. N. Das Gupta, M.Sc., Ph.D.
Sr. B. B. Sen, M.B., B.S. (Medical Physics).
Sri M. L. De, M.Sc. (Electron Microscopy).
Sri A. Guha, M.Sc., (Microbiology).

Division of β -ray Spectroscopy

Research Officer :

Dr. A. K. Saha, D.Sc.

Research Fellow :

Dr. S. Chatterjee, M.Sc., D.Phil.
Sri M. Banerjee, M.Sc.

Division of Nuclear Physics

Lecturer :

Sri S. K. Ghose, M.Sc.

Research Fellow :

Dr. R. K. Das, M.Sc., D.Phil.
Sri T. P. Das, M.Sc.

Electronics Section

Lecturer :

Sri B. M. Banerjee, M.Sc.

Research Fellow :

Sri R. Roy, M.Sc.
Sri J. K. Das Varma, M.Sc.

Nuclear Chemistry

Sri B. C. Purkayastha, M.Sc., (on study-leave in U. K.)

Division of Biophysics

Reader :

Dr. N. N. Dasgupta, M.Sc., Ph.D.
Dr. B. B. Sen, M.B., B.S. (Medical Physics)
Sri M. L. De, M.Sc. (Electron Microscope)
Sri A. Guha, (Microbiology).

Division of β -ray Spectroscopy

Research Officer :

Dr. A. K. Saha, D.Sc.

Research Fellow :

Dr. S. Chatterjee, M.Sc., D.Phil.
Sri M. Banerjee, M.Sc.

Electronics Section

Lecturer :

Sri B. M. Banerjee, M.Sc.

Research Assistant :

Sri R. Roy, M.Sc.

Research Fellow :

Sri J. K. Das Varma, M.Sc.

Nuclear Chemistry

Sri B. C. Purkayastha, M.Sc. (on study-leave in U. K.)

Nuclear Physics

Lecturer :

Sri S. K. Ghose, M.Sc.

Research Fellows :

Dr. R. K. Das, M.Sc., D.Phil.

Sri T.P. Das, M.Sc.

*List of Publications**(Supplement 2) :***Part I: Nuclear Physics :**

1. S. Das & A. Mukherjee Coincidence Experiments on ^{53}Co 60 (1951) (Ind. Jour. Phys., 22, 311)
2. S. Das Delayed Neutrons (Nature 162, 853, 1948)
3. M. N. Saha Occurrence of Stripped Nuclei of Neon in Primary Cosmic Rays (Nature, 167, 476, 1951)
4. S. Dut Mazumdar & D.C. Chowdhury Wave function for the ground state of Lithium (Zeit. f. Physik, 128, 455, 1950)

Part II: Nuclear Chemistry :

1. B. C. Purkayastha ... Fission of Atomic Nuclei (Nucleonics, 3 Nos. 5 & 6, 1948)

Part III: Instrumentation :

1. B. M. Banerjee & R. Roy. A High Precision Ionospheric Sounding Equipment (Science & Culture, 17, 305, 1952)
2. R. K. Das On an automatic Wilson Cloud Chamber, etc. (Ind. Jour. Phys., 25, 481, 1951)

Part IV: Upper Atmosphere and Solar Physics :

1. U. C. Guha Reversal of Polarisation of Microwaves from Sun-spots (Ind. Jour. Phys. 25, 9, 1950)
2. U. C. Guha Analysis of Virtual Height Frequency Records (Journal Geophysics Res., 54, 355, 1949)

3. M. N. Saha, B. N. Banerjee & U. C. Guha Vertical Propagation of Electromagnetic Waves in the Ionosphere
(Proc. Nat. Inst. Sc. Ind., 17 205, 1951)

Part V: Cytology:

1. S.P. Ray Chowdhury & A. Guha X and Neo-Y mechanism of sex determination in the Grasshopper
(Nature 169, 78, 1952)
2. A. Guha, M. L. De & S. P. Ray Chowdhury Electron Microscopic Study of Grasshopper Chromosomes
(Nature, 170 369, 1952)

NATIONAL CHEMICAL LABORATORY

The need for the establishment of a National Chemical Laboratory was felt soon after the appointment of the Director, Scientific and Industrial Research in 1940. A definite plan to set up the national chemical laboratory at Poona was accepted by the Council of Scientific and Industrial Research in 1945 and the foundation-stone of the building was laid by the Hon'ble Shri B. G. Kher, Premier of Bombay on 6th April 1947. Since then the building and equipment has progressed to a stage justifying envisaging the complete transfer of chemical laboratories of the Council of Scientific and Industrial Research to Poona, before the beginning of winter this year.

Prof. J. W. MacBain, F.R.S., an eminent chemist has been appointed Director.

The work of the National Chemical Laboratory would be largely of a fundamental, basic and applied character along lines likely to promote research in industrial chemistry and the chemical utilisation of the raw material resources so as to help the industrial development of the country. The development of new processes evolved at the National Chemical Laboratory will, wherever considered desirable, be carried on up to the pilot plant stage so that chemical and other industries requiring the aid of chemical research in general will benefit from the investigations carried out at the laboratory. In India facilities up to the pilot plant stage are rarely available and much of the scientific research which has been carried out so far, has not been so convincing to industrialists and would-be manufacturers as it might have been if the success of a process had been demonstrated on a semi-commercial scale. The National Chemical Laboratory will be able to initiate ambitious investigations involving large expenditure of funds and materials and will maintain the closest co-operation with existing institutions and with industry.

The work of the National Chemical Laboratory will be divided into seven main divisions: 1. Division of Inorganic Chemistry including Analytical Chemistry. 2. Division of Physical Chemistry including Electro-chemistry, 3. Division of the Chemistry of High Polymers. 4. Division of Organic Chemistry. 5. Division of Biochemistry including Biological Evaluation. 6. Division of Chemical Engineering. 7. Division of Surveys and Intelligence.

The scientific staff of the laboratory will consist of a Director. Heads of Divisions, Research Officers and Research Assistants totalling about 115. In addition to these the administrative and ministerial personnel will number 42 while the strength of the technical staff for workshop and other services will be 35.

In addition to the permanent staff of the laboratory provision will be made for research fellowships and research studentships in each division of the laboratory. Provision will also exist in the laboratory for a number of post-graduate students who want training and experience in any field of work in which the laboratory is interested. These students after their training will provide the scientific and technical personnel to industry, to industrial research laboratories and to scientific institutions.

Poona which enjoys a moderate climate all the year round, and is within easy reach of Bombay and her industries has been selected for the location of the laboratory. A site of 435 acres on a beautiful and healthy plateau and in close proximity to the University of Poona and other educational institutions of the town has been selected for the laboratory on the Pashan Road.

The buildings of the National Chemical Laboratory have been planned to provide accommodation for the Director's office and his administrative staff, offices, small and special laboratory units and general laboratory halls for each division library lecture hall and lecture rooms, a common room and refectory and stores; other buildings will provide accommodation for pilot plants, workshop, boilers, gas plant, stores for coal and inflammable substances; animal house, garage and poison gas and sheds. The design of the buildings will be on a unit plan similar to those of modern laboratory buildings in U. S. A. and U. K. which allows for any amount of expansion to meet future needs. It will incorporate modern fittings, internal telephone system, acid proof floors and air-conditioning, wherever necessary. It is estimated that the laboratory will cover a floor area of about, 180,000 sq. ft. Including the cost of land, building and equipment, it is expected that the total capital expenditure of the National Chemical Laboratory will come to Rs. 68 lacs. The recurring expenses are expected to amount to approximately Rs. 10 lakhs a year. Sir D. J. Tata Trust and the Tata Iron and Steel Company Limited have contributed Rs. 8.3 lacs towards the capital cost of the laboratory, the balance being met from Government grants.

PROGRESS REPORT FOR THE QUARTER APRIL TO JUNE, 1952

1. Progress of Current Scientific Investigations (Total 66 projects).

The work was conducted on 7 projects in Biochemistry, 9, in Chemical Engineering, 8 in Inorganic, 21 in Organic, 7 in Physical Chemistry, 14 in Plastics and Polymers, Divisions.

2. Technical Aid Rendered (Total 101 firms and Government departments).

(a) Survey and Information Division advised 46 private firms and 3 Government departments during this quarter.

(b) 36 additional private firms, totalling 82 were advised by other divisions of the N. C. L.,

(c) 16 additional Government Departments, totalling 19 were helped by other divisions.

3. Other Scientific Activities :

(a) Micro-analysis for Universities and other Laboratories.

(b) Supply of Cultures of Micro-organisms.

(c) Fine Chemicals.

(d) Lectures and visits of important personalities.

4. Lectures and Visits of important personalities :

1. Air Marshal G. E. Gibbs, visited the Laboratory on June 3, 1952.

2. Dr. V. M. Dandekar, Professor, Gokhale Institute of Economics and politics, Poona, delivered a lecture on ' Statistical approach to Scientific Problems ' on June 5, 1952.

3. Vice-Admiral, M. Pizery, Commander-in-Chief of the Indian Navy visited the Laboratory on June 16, 1952.

5. Scientific Investigations Completed :

1. Preparation of arginine from oil cakes (Biochemistry)

2. Estimation of lysine content of oil cakes (Biochemistry)

3. Extraction of nicotine from tobacco waste (Chemical Engineering.)

4. Chlorination of bauxite sludge (Inorganic).
5. Hydrolysis of titanium tetrachloride (Inorganic).
6. Refining of cotton seed oil (Organic).
7. Shoe Polishes (Organic).
8. Isolation of colchicine from the plant 'Gloriosa Superba' Linn. (Organic).
9. Electrophoresis of colloidal electrolytes (Physical Chemistry.)

6. New Investigations Started:

Biochemistry Division:

1. Formation of dextran.
2. Preparation of stable injectibles from calcium gluconate.

Chemical Engineering Division:

3. Liming of hides.

Inorganic Chemistry Division:

4. Chlorination of menazite sand.

Organic Chemistry Division:

5. Chemical analysis of the oil from the seeds of *Sterculia foetida*.
6. Chemical examination of Malabar lemon grass oil.
7. Extraction of essential oil from spearmint.

Physical Chemistry Division:

8. X-ray diffraction studies in shark-ray collagen.

Plastics and Polymers Division:

9. Lignin Plastics.
10. Use of natural rubber in inks and paints.
11. Latex compositions for can sealing.

7. Patents Filed:

1. Ind. Pat. 47,179 ... Improvements in or relating to sugarcane wax—A. B. Kulkarni.
2. Ind. Pat. 47,382 ... A process for the modification of cashewnut shell liquid for use in surface coatings, baking enamels, air-drying varnishes or the like—J. S. Aggarwal and H.H. Mathur.
3. Ind. Pat. 47,439 ... A process for the manufacture of mixed N-P Fertiliser—G. T. Gadre and J. Gupta.
4. U. S. Pat. 270,526 ... Improvements in or relating to the utilisation of the seed oil of *Mallotus philippinensis* Muell, Arg. (Kamala)—J. S. Aggarwal, V. N. Sharma, and S. C. Gupta.

8. Papers Published and Communicated:1. *Published:*(a) *Research Papers:*

1. Bafna, S.L. and Shah, H. A.—Studies in Ion-exchange Part I, Studies of three synthetic cation exchange resins, J. Ind. Chem. Soc., 187 (1952), 29.
2. Bafna, S. L., Pai, M. U., and Shah, H. A.—Ion-exchangers, Part I—Sulphonation of Indian Coal; J. sci. industr. Res., 11B, 134 (1952).
3. Bafna, S. L., Bhagwat, W. V., and Maheshwari, G. L.—Reactions of Iodine, Part I—Reaction between Iodine and Sodium formate in dark, Part II—Reaction between Iodine and formic acid, Part III—Reaction between iodine and sodium malonate; J. sci. industr. Res., 11B, 226, 228, 237 (1952).
4. Bhasin, M. M., Gupta, J. and Aggarwal, J. S.—Recovery of nickel and fat from spent nickel catalyst, *Ibid*, 249 (1952).

5. Gedeon, J., Ueber Randia Saponine and Sapogenine ; Arch., 285, 127 (1952).
6. McGee, C. G. and Iyengar, B. R. Y., Determination of Osmotic Coefficients, Part I, Construction and Calibration of Tharmister Bridge, Ind. Jour. Phys., 26 (1952), 61.
7. Ramakrishnan, C. S., Spontaneous decomposition in vacuum of natural rubber ozonides, J. sci. industr. Res., 245 (1952).
- (b) *Review Papers* :
8. Aggarwal, J. S.—Drying oil resources of India, Paintindia, 2 (1) 47 (1952).
9. Aggarwal, J. S., Recent developments in oil and varnish technology, *Ibid*, 2 (1) 50 (1952).
10. Bafna, S. L.—Cashewnut shell liquid, *Ibid*, 2 (1), 67 (1952).
11. G. Gupta, A. S., Solvent segregation of oils, *Ibid*, 2 (1), 67 (1952).
12. Joshi, B. N., and Varma, J. P., Recent developments in dehydrated castor oil ; *Ibid*, 2 (1), 59 (1952).
13. Kapur, S. L., Second order transitions in high polymers, *Ibid*, 2 (2), 14 (1952).
14. Mitra, C. R., Refined nim oil (*Melia azadirachta*)—a potential raw material for soap and allied industries, Ind. Soap Jour., 17 (1952), 281.
15. Sarin, K. K., Raw materials for paints and allied industries, Paintindia, 2 (1), 45 (1952).
16. Sarin, K. K., Kapur, S. L., and Aggarwal, J. S.—Alkyd and polymerised conjugated fatty acids, Paintindia, 2 (1), 76 (1952).
17. Sethi, S. C. From oils to varnish resins, *Ibid*, 2 (1), 70 (1952).

18. Sharma, P. G., Testing of paints, *Ibid*, 2 (1), 37 (1952).
19. Varma, J. P., Chemically processed oils, *Ibid*, 2 (1), 66 (1952).

2. *Papers communicated :*

1. Bafna, S. L., and Shah, H. A.—The mechanism of the condensation of ethyl acetate with resorcinols (To Current Science).
2. Damodaran, M., and Sivaraman, C., The Germicidal activity of some pyridinium salts containing unsaturated hydrocarbon radicals (To Journal of Bacteriology, U. S. A.).
3. Dutta, N. L. and Bose, J. L.—Isoflavones, Part I—Some nitroisoflavones (to J. sci. industr. Res.)
4. Gadre, G. T. and Gupta, J., Phosphate fertilisers, Part I—Dicalcium phosphate (to J. sci. industr. Res.)
5. Gedeon, J. and Goswami, M.—A process for the manufacture of nicotine sulphate from tobacco waste (to Indian Tobacco Jour.)
6. Gupta, S. C., Sharma, V. N. and Aggarwal, J. S.—Chemical examination of kamala seeds, Part II—Constitution of the new acid isolated from the oil (to J. sci. industr. Res.)
7. Sarin, K. K. and Kapur S. L.—Urea resin coating composition (to J. sci. industr. Res.):
8. Sethi, S. C. and Aggarwal, J. S.—Stabilization of edible fats by spices and condiments, Part I (to J. sci. industr. Res.)
9. Subbaratnam, A. V.—A note on the alkaloidal constituents of *Gloriosa superba* Linn. (to J. sci. industr. Res.)

9. **Changes in Staff:**

Biochemistry Division :

Mr. John Tatpati joined as a Laboratory Assistant (Jr.).

Chemical Engineering Division:

1. Mr. M. M. Uppal, Senior Scientific Assistant left.
2. Mr. P. K. Sarda joined as a Junior Scientific Assistant.

Inorganic Chemistry Division:

1. Mr. P. R. Subbaraman joined as a Senior Scientific Assistant.
2. Dr. S. O. Shukla, Senior Scientific Assistant, left.

Organic Chemistry Division:

1. Mr. S. C. Sethi, J. S. A. was promoted as Senior Scientific Assistant.
2. Mr. V. V. Mhaskar joined as a Junior Scientific Assistant.
3. Mr. M. M. Bhasin, Lab. Assistant (Sr.), was promoted as Technical Assistant to the Vegetables Oils Research Committee.

Physical Chemistry Division:

- Mr. I. S. Krishna Kamath joined as a Senior Scientific Assistant.

Plastics and Polymers Division:

- Mr. Arthur Ghosh, joined as a Senior Scientific Assistant.

10. New Items of Equipment Received:

- | | |
|---|---|
| 1. Grubb Parsons infrared absorption spectrometer | 1 |
| 2. Rotation-oscillation x-ray camera | 1 |
| 3. Optical goniometer | 1 |
| 4. Lead pump | 1 |
| 5. Speedivac vacuum pump | 1 |

11. Construction and Maintenance:

The new animal house, a few hundred feet to the north-east of the main building, was made ready during the quarter under report.

The old boiler house to the north of the Chemical Engineering Division has been converted into a Chlorination Laboratory.

**SERAMPORE COLLEGE, SERAMPUR,
WEST BENGAL**

Serampore College, standing in a large compound on the banks of the river Hughli opposite Barrackpore Park, was the first institution in India to receive the rights and privileges of a University. Founded in 1818 by William Carey, Joshua Marshman and William Ward, "for the instruction of Asiatic Christian and other youth in Eastern Literature and European Science," it was in 1827 incorporated by Royal Charter granted by His Majesty, King Frederick VI of Denmark, the town of Serampore being at that time a Danish Settlement, and in 1845 it was confirmed by the British Government in its chartered rights and immunities on the transfer by the Treaty of Purchase of the Settlement of Serampore from Denmark to Great Britain. In 1856 the College was entrusted to the Baptist Missionary Society to become part of the Society's educational activities; and the following year it was decided to affiliate the College to the newly-formed University of Calcutta, and for 25 years students of the College were sent up for the Calcutta University examinations. For another 25 years the University classes were suspended, but in 1910 the College was re-organised under its own Council on the lines laid down by the founders, by the appointment of a qualified staff in the Faculty of Theology under the provisions of the College Charter, by the opening of Theological classes on an interdenominational basis, and by the renewal of affiliation to the University of Calcutta in the Faculties of Arts and Science. In 1915 the College Charter was utilized for the first time for the conferring of Serampore degrees in Divinity, and in 1918 the Serampore College Act was passed by the Bengal Legislative Council, by which the College Council was enlarged and a Senate was constituted on an inter-denominational basis. The College is now affiliated to the University of Calcutta in the Faculties of Arts and Science, while in the Faculty of Theology it exercises its rights and functions as an University and confers its own diplomas and degrees, namely the Diploma of Licentiate of Theology, and the Degrees of Bachelor of Divinity, Master of Theology, and Doctor of Divinity.

The final authority in all matters relating to the College is the *Council of Serampore College*, a representative body consisting at present of twelve members resident in India having its headquarters in Serampore. The President of the Council is the Master of the College, Mr. P. Mahanty, M.A.

The Secretary of the Council is the Rev. T. C. Vicary, M.A., A.K.C.

For the internal management and good government of the College as a teaching institution authority is delegated by the Council to the *Faculty of the College*, consisting of the Principal of the College and other members appointed by the Council. At present the following, Principal and Professors who are all in residence, form the Faculty :—

- Rev. C. E. Abraham, M.A., D.D. (*Principal*).
 Rev. W. W. Winfield, M.Th., B.D. (*Registrar*).
 Mr. M. N. Biswas, M.A. (*Dean of Arts-Science*).
 Rev. V. E. Devadutt, M.A., B.D., Th.D. (*Dean of Theology*).
 Mr. N. N. Mukherji, M.A.
 Mr. H. N. Gupta, M.Sc.
 Rev. D. F. Hudson, M.A. (*Bursar*).

The Arts—Science Department

The College, as an institution teaching in Arts and Science, is affiliated to the University of Calcutta in the following branches :—

- I.A. ... English, Bengali, History, Logic, Civics, Sanskrit, Hebrew, Syriac, Mathematics, Chemistry, and Physics.
- B.A. ... English (Pass and Hons.), Bengali, Philosophy (Pass and Hons.) Sanskrit (Pass and Hons.), History, Economics, Mathematics (Pass and Hons.), Hebrew, and Syriac.
- I.Sc. ... English, Bengali, Mathematics, Physics, and Chemistry.
- B.Sc. ... Chemistry, Physics and Mathematics.

The Theological Department

The College, as an institution teaching in the Faculty of Theology, follows the Serampore Courses in the following :—

L.Th. (English) Diploma Course.

B.D. Degree Course (including the Preliminary Course to the B.D.).

M.Th. Degree Course.

Hostels, Library and College Sessions

Attached to the College is a well-equipped Hostel for men students, and a smaller Hostel for women students, under the care of wardens who are members of the teaching staff of the College.

The Library of the College, containing about 20,000 volumes, provides not only for the needs of the main body of students, but also offers facilities for research work, especially in subjects connected with the study of Theology.

The College Sessions for the Arts-Science Department and the Theological Department are approximately—

First Term	... July 1 to September 21.
Second Term	... November 1 to December 23.
Third Term	... January 2 to the end of April (or the close of examinations.)

Further particulars regarding courses of study, qualifications for entrance, scholarships, etc., may be obtained from the Principal, Serampore College, Serampore, E. I. Ry., W. Bengal.

Serampore College as a University

Serampore College in its capacity as a University incorporated by Royal Charter exercises its University functions in the Faculty of Theology. For the framing of Courses of studies in Theology, the holding of examinations, the forming and administration of Regulations relating thereto, and the making of recommendations to the Council regarding the granting of Degrees and Diplomas in Theology, authority is delegated to the *Senate of Serampore College*, resident in India, and at present consisting of the following:—

Convener and President:

Rev. C. E. Abraham, M.A., D.D.

Registrar

Rev. W. W. Winfield, M.Th., B.D.

Rev. M. Blanchard, Th.M., Th.D.
 Rev. F. L. Coleman, S.T.M., D.D.
 Rev. P. E. Daniel, B.A., B.D.
 Rev. S. C. De, B.A., B.T., L.Th.
 Rev. V. E. Devadutt, M.A., B.D., Th.D.
 Rev. C. Devasahayam, B.Sc., B.D.
 Rt. Rev. G. N. L. Hall, M.A.
 Rev. M. H. Harper, B.Sc., B.D., Ph.D.
 Rev. M. H. Harrison, S.T.M., Ph.D.
 Rev. John Kellas, M.A., D.D.
 Rev. P. de F. May, M.A.
 Rev. C. C. Pande, B.A.
 Rev. Benjamin Pradhan, B.A., B.D.
 Rt. Rev. J. Sandegren, M.A., D.D.
 Rev. R. W. Scott, M.A., Ph.D.
 Rev. Canon T. Sitther, M.A., B.D.
 Rev. J. B. Weir, Ph.D., D.D.

AFFILIATED COLLEGES

The following Colleges in India are affiliated to Serampore College in the Faculty of Theology :—

Affiliated Colleges

United Theological College, Bangalore.	Principal Rev. M. H. Harrison, S.T.M., Ph.D.
Leonard Theological College, Jubbulpore.	Principal Rev. M. H. Harper, B.Sc. B.D., Ph.D.
Bishop's College, Calcutta,	Principal Rev. P. de D. May, M.A.
Mar Thoma Seminary, Kottayam.	Principal. Rev. T. C. Thomas, M.A., L.T., B.D.
Kerala United Theological Seminary, Trivandrum.	Principal Rev. S. John, B.A., B.D.
Theological College, Cherrapunji.	Principal Rev. T. B. Philips, B.A., B.D.

United Theological College of Western India, Poona.	Principal Rev. J. Reid Graham, B.A., B.D., Ph.D.
Baptist Theological Seminary, Cocanada.	Principal Rev. Ch. Bhanumurti, L.Th.
Andhra Union Theological, College, Dornakal.	Principal Rev. W. Scopes, M.A
Basel Evangelical Mission Theological Seminary, Mangalore.	Principal, Rev. S. J. Samartha, B.A., B.D., S.T.M.
Gujarat United School of Theology, Baroda Residency.	Principal Rev. C.K. Young, M.A.
Luthegiri Theological College, Rajahmundry.	Principal, Rev. F. L. Coleman, S.T.M., D.D.
Lutheran Theological College, Ranchi.	Principal, Rev. J. J. P. Tiga, M.S.T., B.D.
Tamilnad Theological College, Tirumaraipur.	Principal, Rev. Canon T. Sittler, M.A., B.D.
Union Kanarese Seminary, Tumkur, Mysore State.	Principal, Rev. A. M. Bhaskara, B.D. (offg.)
North India United Theologi- cal College, Saharanpur.	Principal, Rev. S. N. Talib-Din, D.D.
Union Theological Seminary, Bareilly.	Principal, Rev. W.K. Whetstone M.A., B.D. (offg.)

Admission to the University

A candidate seeking admission to the University must have passed the Matriculation examination conducted by Serampore College or an examination accepted as equivalent thereto.

The Matriculation examination is held annually normally in February, and candidates must take the following *compulsory papers* :—

English, Scripture, General Knowledge, History and Geography, Vernacular Essay and Translation.

Candidates must also take one of the following *optional papers* :

Elementary Science, Mathematics, a Classical or Ecclesiastical Language, Elementary Biology and Botany, Civics, History of

Greece and Rome, History of Great Britain, and History of Ceylon.

Matriculates may enter upon the Courses leading to the L.Th. Diploma; candidates seeking admission to the B.D. Degree Course must either have graduated in Arts or Science, or have passed with "Distinction" the examination of the Preliminary Course to the B.D. Degree.

COURSES OF STUDY, DIPLOMAS AND DEGREES

I. Licentiate of Theology (L.Th.) Diploma Course (Anglo-Vernacular).

Open to Internal Students only.

Twenty-nine papers must be completed from the following :—

First year (nine papers)

Compulsory (eight)

Old Testament (2 papers)
New Testament (3 papers)
English Composition
Vernacular Composition
History of Christianity in India

Optional (one)

New Testament Greek
Vernacular Studies.
Books from Vernacular Bible

Second and Third Years (twenty papers)

Compulsory (sixteen)

Old Testament (4 papers)
New Testament (4 papers)
Christian Theology (2 papers)
Church History
History of Religions
Essays (4 papers)

Optional (four)

Church History
History of Religions
Vernacular Studies
Pastorals
Rural Reconstruction
New Testament Greek
Religious Education
Liturgiology

II. Licentiate of Theology (L.Th.) Diploma Course (English).

Open to Internal and External Students.

Twenty-one papers must be completed from the following :—

CAUTION:

**Image 1220 is NO longer
present in scan-order!**

**Maybe it was deleted from
outside of BCS-2 ?**

Part I (eight papers) One-Year Course :*Compulsory* (*seven*)

Old Testament
 New Testament
 English (3 papers)
 Vernacular Text and Composition
 Psychology

Optional (*one*)

Outline of World History
 New Testament Greek
 Classical Language
 Elements of Science

Part II (thirteen papers) Two-Year Course :*Compulsory* (*eleven*)

Old Testament (2 papers)
 New Testament (4 papers)
 Christian Theology (2 papers)
 History of Religions
 Church History
 Vernacular Essay

Optional (*two*)

History of Religions
 Church History
 Classical Language
 Vernacular Studies
 Pastoralia
 Liturgiology

III. Bachelor of Divinity (B.D.) Degree Course.

Open to Internal and External Students.

- (a) *Preliminary Course* (One Year) for non-graduates.
 This Course is the same as for the L.Th. (English) Course Part I. The candidates must pass the examination with "Distinction" to qualify for registration in the B.D. Course.
- (b) *B.D. Course* (Three-Year Course) for graduates and those who have qualified with "Distinction" in the Preliminary Course.

Twenty-seven papers must be completed from the following Branches :—

Branch I	...	Old Testament, with or without Hebrew.
Branch II	...	New Testament, with Greek.
Branch III	...	Christian Theology.
Branch IV	...	History of Religions.
Branch V	...	Church History.
Branch VI	...	Essays, Translation and Thesis,
Branch VII	...	Philosophy of Religion.

Branch VIII	...	Classical and Ecclesiastical Languages.
Branch IX	...	Moral Philosophy.
Branch X	...	Vernacular Studies.
Branch XI	...	Psychology of Religion.
Branch XII	...	Pastoralia.
Branch XIII	...	Religious Education.
Branch XIV	...	Liturgiology.
Branch XV	...	Rural Church and Indian Culture.

Eighteen Compulsory Papers must be taken from Branches I to VI ; Nine Optional Papers must be chosen from among all the Branches.

IV. Master of Theology (M.Th.) Degree Course.

Open to Internal and External Students.

One Branch must be completely selected from the following Branches :—

Branch I	...	Old Testament, with Hebrew.
Branch II	...	New Testament, with Hellenistic Greek.
Branch III	...	Christian Theology.
Branch IV	...	History of Religions.
Branch V	...	Church History.
Branch VI	...	Philosophy of Religion.

The examination in each Branch consists of seven papers, six compulsory and one selected from a number of optionals, or a Thesis may be offered in lieu of the Optional paper.

Candidates who have obtained the B.D. Degree (in the First or Second Class) are eligible for registration.

V. Doctor of Divinity (D.D.) Degree.

The Doctorate may be obtained on submission of a Thesis in accordance with the Regulations. Normally a candidate must have obtained the M.Th. Degree or the equivalent.

The Examinations for the L.Th. Diploma, and the B.D., and M.Th., Degrees are normally held in April of each year.

The Regulations regarding the syllabuses and courses of study, and information concerning qualifications for entrance, prescribed books and texts, etc., may be obtained from the Registrar, Serampore College, Serampore, E. I Ry., W. Bengal.

THE NATIONAL METALLURGICAL LABORATORY OF INDIA, JAMSHEDPUR

The National Metallurgical Laboratory forms a link in the chain of research laboratories and institutes founded by the Council of Scientific and Industrial Research. Situated in the steel town of India the NML plays its own part together with the other laboratories in adding to our knowledge of science and technology and in helping the industrial growth of this Five-Year Old Republic.

Less than two years after the NML was officially opened by the Prime Minister Shri Jawaharlal Nehru on November 26, 1950 the NML now reports to the nation. It is hoped that this report will enable the tax-payers to realize that useful work is being done in this laboratory.

Research Work :

Starting from the ore and going to the finished metallurgical product, one can see the various sections of the NML busy in getting better answers to the questions How ? Whether ? and Why ? The work of the laboratory still suffers from non-availability of certain specialized instruments but an attempt is made to utilize and justify the available equipment. The number of problems in progress at any time during the last year has averaged at about fortyfive. Only a few of these are outlined in this report. The projects at hand vary from those like beneficiation of certain ores which are of immediate practical importance, to those like the study of bainite formation in steel which are highly theoretical. It is reckoned that without neglecting either the fundamental or the industrial schemes, a fair proportion of the work is of an applied nature.

Ores, as found in nature, are not always suitable for direct processing and some improvement in the grade is brought about by ore-dressing methods. The NML has undertaken a scheme for studying the suitability of several low-grade chromium ores. Of these, work on ores from Dodkanya and Talur (in Mysore) and Kittaburu (Bihar) has been completed and samples from Arsekere and Dodkatoor (in Mysore) are being studied now. Similarly, concentration of low-grade pyrites from Chitaldrug (Mysore), Wynaad (Nilgiris) and Karwar (Bombay) was also investigated and the work on the first sample has shown that ores from Chitaldrug if found in large deposits, may yield considerable bulk of sulphur after proper beneficiation. This work is

carried out at the instance of the Geological Survey of India. Of topical interest in the era of the atom, is the work on the concentration of low grade uranium ores, which is also being carried out at the NML in collaboration with the Atomic Energy Commission.

A series of low grade manganese ores are also being studied in collaboration with the Indian Bureau of Mines. It is roughly computed that every ton of high grade manganese ore mined, there remains at the mine site about 3 to 4 times the weight of low-grade ore. Beneficiation of low grade ores is being studied by ore-dressing as well as by thermal methods. The economic importance of this scheme warrants its special mention.

Coming now to the metal extraction stage, there are schemes on the manufacture of electrolytic manganese, beryllium oxide has been completed and pilot plant experiments are being planned. Of these studies, the work on titanium metal is in tune with modern trends in metallurgy, since titanium is said to be the wonder metal of today. Not only does titanium possess remarkable physical and mechanical properties coupled with a low specific gravity but also India has vast resources of Ilmenite (ore for titanium). So research for the manufacture of this metal has special significance. Work on the production of high purity manganese dioxide from Indian ores has now been completed and is ready for pilot plant operations.

The furnaces and heat treating equipment for metallurgical operations require satisfactory refractory materials. Research on the production of high quality refractories is also a part of the activity of the NML. India has one of the largest workable deposits of sillimanite in the world and thus the manufacture of sillimanite refractories from these raw materials form a project of research at the laboratory. Work on the manufacture of graphite, silicon carbide and superbasic refractories has also been undertaken. Preliminary results show that the products compare favourably with standard imported goods and further work on standardisation is now at hand.

Coming to the foundry side, one finds three investigations—one on the ferrous, one on the non-ferrous side and the third on foundry sands. Cast iron can be made slightly ductile by a process called nodularizing and this nodular iron—as it is called

—can be substituted economically for some steel castings. Research on nodular iron at the NML is centered firstly around the theory and mechanism of the process and secondly on the application of the method to Indian pig irons. The theoretical work has progressed considerably and the effect of phosphorus—the main element in which Indian pig iron differs from others—is being studied systematically. The other problem—on non-ferrous materials—is the manufacture of aluminium silicon alloys by the direct reduction of silica (quartz) by an aluminothermic process. Work done to-date shows that the process is quite feasible. The third investigation is more of a service to the industry. In this research the founding characteristics of several Indian foundry sands are being tested. As more and more samples are supplied to the NML by the various operating foundries in the country, the scheme will grow into a compilation of valuable data regarding the suitability of various sands from all parts of India.

Coming to steel, one finds problems related to its manufacture, choice of substitutes elements, and its behaviour in heat treatment. The first category is represented by a scheme on the manufacture of low carbon ferro-chrome by reducing chromite ferro-silicon. Work on this scheme has been completed. The problem on the aluminizing of steel by a hot-dip process has been undertaken with a view to study the usefulness of this process to make ordinary mild steel corrosion-resistant. Response of steel to heat-treatment is being studied in a variety of ways. Firstly, there is the problem of grain growth inhibition and abnormality. It is shown by the research obtained so far that an optimum amount of aluminium addition produces the maximum inhibition to growth in plain carbon as well as nickel-chrome steels. Grain size control by such addition improves the mechanical properties of steels. The determination of the exact percentage necessary in the various types of steels is at hand. Secondly, there are the problems on the changes that occur in heat-treating. In this connection the isothermal transformation characteristics in the bainite range and the effect of aluminium additions on the hardening behaviour (martensite range) are being studied.

The plating industry has also something to look for at the NML since several problems have been investigated and completed in the laboratory. The substitution of cyanide with non-cyanide baths for the electro-plating of brass deserves special mention as this reduces the health hazards in the industry. The scheme on this problem has been completed and a patent has

been obtained on the process. Techniques of plating metals on non-metals like glass, wood, paper and porcelain have also been worked out and patented. Another electroplating problem is that of chromium plating on aluminium. This has special value to the automotive industry since a successful solution may eliminate the use of steel in the 'chrome' on automobiles.

The use of metal products is interested in obtaining specific performance from the parts he obtains, and here comes the field of testing. In this connection considerable work has been done on the wear of railway wheels, tyres and axles. The role of wear-products in accelerating wear was determined. The work is being continued to correlate wear resistance with physical properties and structure of the materials. Two other aspects of performance in service are also receiving attention at the NML. Work is being carried out on the impact fatigue resistance of structural steels and the fatigue properties and notch sensitivity of structural steels and aircraft alloys. Research of amore fundamental nature on the elastic and plastic properties of metals and on the upper and lower yield points of steels has also been under taken.

Special purpose alloys for permanent magnets are also studied in the NML. An attempt is being made to develop permanent magnet alloys of iron, manganese and aluminium. The more common alloys contain nickel and cobalt, and the work undertaken represents an attempt in substituting manganese for the elements nickel and cobalt which are not available in India. Incidentally, some of the iron-manganese-aluminium alloys prepared for the development of magnets, show some resistance to corrosion and high temperature oxidation. This incidental discovery is now being systematically investigated for commercial exploitation.

While the foregoing broad outline of the research programme of NML appears sketchy, it is to be remembered that research work has been in progress for less than two years. As time goes, the research schemes will be modified and amplified to suit the demands of the Indian metallurgical and allied industries.

Aid to the Industry:

In addition to the research work described above the NML strives to aid the growth and development of the Indian industry. This is achieved by investigating problems referred to the NML by the industry and by answering queries for information and technical aid.

There have been two types of such problems referred to the NML. While the first type involves a fairly extensive investigation of an industrial process or scheme of development, the second category involves the examination of operational difficulties or service failures. To give some examples of first type, one may cite the work done for the aluminium industry on the disintegration of Soderberg electrodes and on the separation of cryolite from carbon dust produced in the reduction furnaces. The jari plating workers at Surat were experiencing great difficulty in plating either due to colour or burnt deposit or no-deposition at all. The problem was successfully tackled by the NML and the industry has now increased its output. One can cite also the case of service to a Government Department. The mint suggested work on the recovery of nickel and zinc from the spent liquor left after recovering silver and copper from the old silver coins. This was of strategic importance since India is deficient in nickel. The problem has been solved.

The examination of service failures is also carried out at the NML and forms an important link in the development of contacts with the various industrial concerns in the country. While the administration of such aid to the industry is dealt with in the next section, two problems of this type are mentioned here. The first problem involved the investigation of droppers of the overhead traction equipment on the electrified railway system. Failure of four such droppers had caused fatal and minor casualties among passengers of the Bombay-Calcutta Mail in the Ghat Section near Igatpuri, Bombay. The NML handled the problem and suggested several remedial measures to prevent future mishaps. The failure of a gear box assembly of the gypsum grinding plant at Sindri was referred to this laboratory at the time of completing this report, and the investigation has been completed.

Contacts with Industry and the Public :

Catering to the demands of the Indian metallurgical and allied industries and the public forms an essential function of the NML. Contacts with the outside are developed and maintained with a two-fold objective: to ascertain the type of work required of the laboratory so as to plan its activities, and secondly, to clarify and popularize the aims and results of research and to render as much aid to the industrial development of the country.

Contacts with the public are developed both directly by popular talks and articles on the scope and functions of the laboratory and indirectly through the fortnightly issues of the 'CSIR NEWS' published by the Council of Scientific and Industrial Research. The staff of the laboratory contribute their own mite in their individual capacities as members of varied learned and professional societies.

The open door policy of the NML to guests and visitors is another way in which the laboratory keeps in touch with the public. Tours of students of metallurgy in the Indian Universities are regular features at the NML and the laboratory hopes that it can in this way contribute to develop these metallurgists of the future.

The results of most of the research work carried out in the NML are published in either the Journal of Scientific and Industrial Research (a C.S.I.R. organ) or in the proceedings and transactions of technical and learned societies and institutes.

Direct contacts are developed with the metal industries in India. The Liaison and Information Section of the Laboratory acts as the channel for these contacts. These take the shape of answering routine queries for information, or taking up short problems or routine tests. The answering of queries is done in collaboration with the staff of the laboratory. The answers required vary from information regarding the availability of some particular ores and materials to some concrete suggestion on some difficulties. To illustrate the latter, one can mention the query on excessive dross formation in a galvanizing plant. No charge is made for such service ; but a small fee is charged if some experimental work is required.

Special tests and investigations of short duration have been undertaken by the NML. For example, brick samples from a large number of firms have been tested for refractory properties, and more than half a dozen ore dressing tests have been conducted. To illustrate a short investigation carried out for an outside party, one can mention the problem on the heat-treatment and testing of a buffer coiled spring used in railway wagons.

To enhance contacts with the public, the NML held a Symposium on 'Electroplating and Metal Finishing' on the 7th and 8th of March, 1952. It was pleasing to see a gathering of technical personnel presenting results of their work and

discussing their own problems under one roof. More than fifty delegates from the industry and Government institutions attended this meeting where about 30 papers were read. The papers dealt with the theoret'cal and practical aspects of the problem and lively discussions followed each paper. Encouraged by the response to this first symposium, the NML is now planning to hold a symposium on 'Industrial Failures of Engineering Metals and Alloys'. It is hoped this will enable the NML first to gather the available information on the subject discussed and secondly to focus its attention on problems requiring urgent solution.

Concluding remarks :

To describe the work of the National Metallurgical Laboratory and outline its objectives so soon after its birth is really premature. The laboratory has started functioning. There work is going on. Research along many lines is in progress and work on some schemes has been completed. The need of keeping in touch with the industry and public has been realised and efforts have been made to develop these contacts. An Advisory Board consisting of industrialists, professors, technical officials from Government Departments, etc., has been constituted by the Council to help and advise the Director of the laboratory in connection with the programme of research work to be carried out in the laboratory.

Officers :

Ag. Director :

Dr. G. P. Contractor.

Assistant Directors :

Dr. B. R. Nijhawan.

Dr. T. Banerjee.

Mr. P. I. A. Narayanan.

Mr. Rabindar Singh.

Senior Scientific Officers :

Dr. M. S. Mitra.

Dr. A. A. Krishnan.

Dr. B. C. Kar.

Mr. P. P. Bhatnagar.

Dr. A. B. Chatterjee.

Mr. P. K. Gupte.

Junior Scientific Officers :

Mr. P. V. Mahajan.
Mr. D. S. Tandon.
Mr. K. N. Srivastava.
M. D. D. Kaushal.
Mr. A. N. Kapoor.
Mr. B. L. Sen.
Mr. H. P. S. Murthy.
Mr. B. N. Das.
Mr. G. V. Subramanya Iyer.
Mr. H. P. Bhattacharjee.
Dr. Sudhir Sen.

Electrical Engineer :

Mr. R. B. Gangoly.

Mechanical Engineer :

Mr. N. B. Panjwani.

Administrative Officer :

Mr. R. R. Rao.

SHREEMATI NATHIBAI DAMODAR THACKEREST WOMEN'S UNIVERSITY, BOMBAY

The University was founded by Dr. D. K. Karve, B.A., D.Litt., LL.D., in 1916 with the following Aims and Objects :—

- (a) To make provision for the higher education of women through Modern Indian Languages as Media of Examination and instruction by starting, aiding and affiliating institutions for such education.
- (b) To formulate and lay down courses of study specially suited to the needs and requirements of women.
- (c) To make provision for the training of teachers for primary and secondary schools.
- (d) To institute and confer Degrees and Diplomas, etc., as may be prescribed by the regulations.

The University was stabilised by the munificent Donation of Rs. 15 lacs from Sir Vithaldas D. Thackersey on 21st June 1920. Before the grant of Statutory Recognition, the University received recurring grants from the Government of Bombay and from the Government of India. It received non-recurring grant of Rs. 2 lacs from the Government of Bombay and from the Government of India.

2. The University has now acquired a status of a Statutory University by the Bombay Act No. LI, 1949 called the "Shreemati Nathibai Damodar Thackersey Women's University Act". It began to function as a Statutory University from 13th January 1951 with H. E. the Governor of Bombay as its first Chancellor, Lady Premlila V. Thackersey as its first Vice-Chancellor.

3. The University is governed in accordance with the provisions of the Shreemati Nathibai Damodar Thackersey Women's Act. The Senate is the supreme Governing Body of the University. The Executive Government is vested in the Syndicate. The other Authorities of the University are the Dean of the Faculty of Arts (Shri. K. C. Desai, B.A., LL.B.), and the Registrar (Miss Laxmi Thackersey, B.A.).

4. The University is receiving a recurring grants from the Government of Bombay and has also received non-recurring

grants of Rs. 4,50,000 from the Government of Bombay and of Rs. 2,00,000 from the Government of India.

5. The University is conducting an Arts Faculty, and so far 1873 Bachelors of Arts and 168 Masters of Art are sent out. Candidates have taken the degree in teaching called the B. T.

6. The University Authorities desire to extend the activities of the University in different directions beneficial to women. Already the Nursing College has been started in Bombay which has been attached to the S. N. D. Thackersey College for Women, Bombay. It is hoped that many students will take advantage of it.

7. Inspite of the grants received from the Government and the Central Government and donations and subscriptions received from the public, the financial position of the University has not improved. All efforts are made to reduce the deficit by practising rigid economy in every respect. The Authorities have not been able to satisfy the essential requirements so far, though they wish to do so in the near future as soon as the finances of the University permit. The grant of Statutory Recognition will not solve all the problems. The University will have to start several Faculties which will require enormous funds. It might not be possible for the Government to bear all the financial burden. They may be requested to give substantial grants but the public also shall have to come to the rescue to the University.

BUDGET OF THE UNIVERSITY, 1952-53

Income

	Rs.
Grant from Vithaldas D. Thackersey, Kt.	45,000
Government Grant	75,000
From other sources such as Examination fees, Interest on Permanent fund, subs- criptions, Donations... ..	1,00,525
	<hr/>
	2,20,525
	<hr/>

Expenditure

	Rs.
On University Colleges	73,591
On University Schools	27,967
Grants to affiliated Institutions... ..	5,900
Vanita Vishram	5,000
Office Expenses, Examination Charges, Travelling, etc.	1,02,831
Provident Fund	6,345
Building Repairs, Gratuity, Depreciation etc.	21,000
	<hr/>
	2,42,634
	<hr/>

Rs. 22,109-0-0 Deficit

The deficit is met from the Donations and the Permanent Fund.

Admission, Courses of Study and Degrees

Admission to the University is by Entrance Examination or Matriculation of any University recognised for that purpose by this University. Degrees:—(1) Bachelor in Arts (B.A.) ; (2) Master in Arts (M.A.) ; (3) Bachelor of Teaching (B.T.)

F. T. A., S. T. A., B.A.

Compulsory Subjects :

(1) Modern Indian Language (Mother Tongue)

(2) English

(3) Group No. 1 :

F. Y. A., Indian Administration

S. Y. A., Elementary Economics and Civics

B.A., Sociology.

(4) Group No. II :

F. Y. A., Biology

S Y. A., Physiology and Hygiene

B.A., Psychology and Study of Child mind.

Voluntary Subjects :

1. Sanskrit or Persian
2. Modern Indian Language
3. Modern European Language (English, French)
4. History
5. Geography
6. Logic, (F. Y. A., S. Y. A.)
7. Music
8. Drawing and Painting
9. Economics (B.A.)
10. Ethics and Philosophy (B.A.)

M.A. :

1. Modern Indian Language (Mother-Tongue)
2. English
3. History
4. A Classical Language
5. Psychology and Philosophy
6. Pedagogics
7. Music
8. Drawing and Painting
9. Sociology and Psychology
10. French

A candidate has to answer six papers in any one of the above subjects. Alternatively a thesis can be submitted which may be accepted in lieu of the whole or part of the examination.

B.T. :

This is a Degree in Teaching. Papers in all subjects except English shall be answered throughout in the mother tongue of the candidate.

N.B.—Detailed information about the courses can be had from the Registrar, S. N. D. Thackersey Women's University, 1, Nathibai Thackersey Road, Queen's Road, Fort Bombay No. 1.

Chancellors :

- 1916. Sir Ramakrishna Gopal Bhandarkar, M.A., Ph.D.
- 1920. Sir M. B. Chaubal, Kt., B.A., LL.B., K.C.I.E., C.S.I.
- 1926. The Hon'ble Sir C. V. Mehta, M.A., LL.B., K.C.S.I.
- 1932. Sir Sitaram S. Patkar, Kt., B.A., LL.B.
- 1946. Sir H. V. Divatia, Kt., M.A., LL.B.
- 1949. Dewan Bahadur K. M. Jhaveri, M.A., LL.B.
- 1951. His Excellency the Governor of Bombay (in office at present).

Vice-Chancellor :

- 1916. Dr. R. P. Paranjpye, M.A., D.Sc.
- 1921. Professor D. K. Karve, B.A., D.Litt., LL.D.
- 1921. Sir L. A. Shah, Kt., M.A., LL.B.
- 1926. Dr. R. P. Paranjpye, M.A., D.Sc.
- 1926. Mr. Balak Ram, M.A., I.C.S.
- 1929. Dr. Y. D. Nadgir, M.S., F.C.P.S.
- 1931. The Hon'ble Mr. Justice S. S. Patkar, B.A., LL.B.
- 1932. Professor D. K. Karve, B.A., D.Litt., LL.D.
- 1943. Mrs. Sharadagauri Mehta, B.A.
- 1944. Dewan Bahadur H. L. Kaji, M.A., B.Sc., J.P.
- 1947. Mrs. Hansa Mehta, B.A.
- 1949. Mr. K. C. Desai, B.A., LL.B.
- 1950. Lady Premlila V. Thackersey.
- 1951. Dewan Bahadur K. M. Jhaveri, M.A., LL.B., J.P. (in office at present).

Registrars :

- 1916. Professor D. K. Karve, B.A., D.Litt., LL.D.
- 1917. Professor Dr. H. R. Diwekar, M.A., D.Litt.

1924. Professor N. M. Athavale, M.A.
 1931. Dr. (Mrs.) Irawati Karve, M.A., Ph.D.
 1936. Mrs. Sharada Diwan, M.A.
 1944. Miss Laxmi Thackersey, B.A.
 1950. Mrs. Lilla Wagle Dhume, M.A. (Catab.).
 1951. Miss Laxmi Thackersey, B.A. (in office at present).

Endowments :

There are 22 prizes and 22 scholarships awarded from the interest on the Endowment Fund, and also a few temporary scholarships and prizes.

University Property :

	Rs.	a.	p.
Permanent Fund	2,00,849	6	3
Endowment Fund	92,751	0	0
	<hr/>		
	2,93,600	6	3

In addition to the above the University owns the following :—

	Rs.
1. 24 Acres of Land at Yerandavana ...	36,000
2. Main Building of the S.N.D. Thackersey College, Poona ...	1,25,000
3. Hostel Building at Poona	75,000
4. Minor Building near the College ...	25,000
5. Piece of Land for S. N. D. T. Kanyashala, Poona	27,000
6. The Vithal Raghoba Lande Build- ing with Extension	80,000
7. New Building at Bombay (Purchase Price)	2,47,875
8. New plots at Bombay for University Office and College	2,61,788
9. New Building (South Wing) ...	8,00,000
	<hr/>
	17,07,663

TATA INSTITUTE OF FUNDAMENTAL RESEARCH, BOMBAY-1

The Tata Institute of Fundamental Research is an all-India Institute devoted to research in atomic physics and those other subjects closely related thereto. The Institute is affiliated to the University of Bombay and admits students from all over India for research in order to enable them to take the Ph.D., degree either of the University of Bombay or from the University from which they took their first degrees. Most of the Indian universities recognise the research work done at the Institute. The minimum qualification for admission is an Honours degree in physics or mathematics of any of the Indian universities. All students admitted to the Institute are normally paid stipends of Rs. 175 per month and the tenure of award is usually not more than two years. The Institute does not give any prescribed courses. The total number of students at the Institute at present is 22. The total income of the Institute is made up of the following :—

1. Grant from the Sir Dorabji Tata Trust Rs. 1 lac
2. Grant from the Government of Bombay Rs. .40 lacs
3. Grant from the Council of Scientific and Industrial Research Rs. .86 lacs
4. Grant from Ministry of Natural Resources and Scientific Research ... Rs. 3.02 lacs
5. Grant from Board of Research on Atomic Energy for various schemes in progress at the Institute... .. Rs. 1.8 lacs

In addition, the Atomic Energy Commission, Government of India, has entrusted a portion of its work in theoretical and experimental physics to this Institute and meets the expenditure incurred by the Institute for the Commission's work. Research facilities in the following subjects are available at the Institute :—

1. Theoretical Physics—Quantum Mechanics and Theory of Elementary Particles.
2. Mathematics—Statistics, Tensor Analysis, Theory of Differential Equations, Algebra (theory of groups, rings and fields), Topology (theory of measure and integration), Analysis (Functions of a Real or Complex variable, Fourier integrals and series, Tauberian Theorems.)
3. Cosmic Radiation—Experimental.
4. Nuclear Physics.

INDEX OF NAMES

- Abdin, M. Z., 910
 Abdurrahman, M.C.C., 668
 Abeysckera, E. A., 369
 Abhayaratne, O.E.R., 398, 403
 Abhyankar, R.N., 861
 Abide, S.M.A.H.H., 810
 Abraham, C.E., 337, 1197-98
 P.S., 1022
 A., 1023
 Achar, M.V., 1134
 Acharyya, C.M., 1068
 Adam, S., 668
 Adisesiah, P., 664
 Adoni, D. L., 1609
 Advani, T.M., 236
 R.M., 1002
 Afonso, F.C., 236
 Agarwal, A.N., 44
 V.S., 162
 S.C., 602, 1106
 S.N., 808, 811, 812
 A.C., 898
 L.S., 1001
 B.K., 1002
 K.L., 1132-33
 Agharkar, S.P., 943
 Agnihotri, J.R., 898
 Ahamad, Z., 371, 855
 S., 854
 F., 855
 T., 858
 K., 910, 911
 S.A., 911
 Z.V., 1003
 Ahmed, N.L., 236
 E., 606
 Ahmeduddin, S.M., 856
 Aiyar, C.P.R., 135
 S.R., 135
 R.S., 135
 V.G.R., 135
 V.G., 136
 T.N.M., 136
 S., 1023
 Akram, M., 859
 Aleem, A., 371
 Alexander, P.J., 1024
 Alexandrowicz, C.H., 660
 Ali, Z., 43
 H., 434
 A.S.A., 667
 S.M., 730, 732, 733
 M.H., 731
 S.N., 733
 A., 856
 H.A., 875
 S.F., 1067
 Alley, N. H., 598
 Altekar, A.S., 910
 Amarasingham, J. S., 404
 Amarasinghe, C.D., 404
 Amecr, A., 7
 Amma, K.R., 664
 B.A., 1024
 C.S., 1026
 Ammal, N.A., 74
 Anand, P., 899
 B.M., 901
 C. L., 904
 Ananthachari, M.D., 73
 Anghic, B.C., 394
 Annunciata, M., 666
 Anthonisz, H.T., 405
 P.R., 407
 Appajee, Y., 752, 753
 Appapillai, V., 402
 Appasamy, K., 598
 Apte, V. M., 1010
 Arokiyaswami, M., 658
 Arora, G.L., 902
 F.C., 903
 S.D., 950
 K.L., 1106
 Arunachalam, K., 667
 Asana, R.D., 1147
 Asirvatham, E., 808, 810
 Asthana, R.P., 812
 K.C., 1002
 Asundi, R.K., 163
 K.R., 161
 Athar, M., 856
 Atraya, B. L., 161, 170
 Attyghalle, N., 397, 398, 405
 Auluck, F.C., 433
 Aung, U.T., 984,
 H.A., 984, 985
 Ausari, Z., 856
 M.Y., 861
 Austin, L.D. C., 407
 Authikesevahi, M., 753
 Awasthi, R.P., 606
 A., 809
 Awati, P.R., 231
 Ayyangar, S.N., 663
 T.T., 665
 S.T., 665
 T.R., 667
 N.S., 668

- Ayyar, D.N., 557
 K.N.N., 662
 M.S.S., 662
 N.S., 662
 A.V.A., 666
 V.S., 667
 Azeez, A.M.A., 397
 M.A., 732
 Azizuddin, I.M., 658, 663
- B
- Babbar, O. P., 1008
 Bachkheti, N. D., 1133
 Badhwar, R. L., 1133
 Badkas, D. J., 1167
 Bagchi, H., 334
 Bagi, C.S., 574
 Bahadur, M.R.A., 69
 J.R.S., 159
 B.S., 159
 Bahl, K. N., 909
 Batchwal, M.R., 238
 Baig, M.H.A., 861
 Baitholomensz, E.F., 400
 Bajji, A.R., 490
 Bajpai, T.P., 4
 G.S., 230, 506, 569, 941
 A., 809
 P., 1008
 N.D., 1009
 M., 1091
 Bal, C., 164, 170,
 G.S., 235
 Balachandra, J., 1166
 Balaguer, M., 235
 Balakrishna, R., 658
 O.K., 660
 Balasubramaniam, T.S., 172
 R., 666
 Balasundaram, S., 1163
 Balendra, W., 405, 407
 Bali, H.C., 904
 Baliah, V., 136
 Baliga, B.R., 667
 Ballabah, R., 603
 Balmoud, H. J., 394
 Bambah, R.P., 901
 Banda, M.D., 394
 Banerji, S.B., 3
 A.C., 41, 338
 K., 43
 B.N., 221, 1187
 G.C., 235
 S., 333, 334
 L., 333
- I., 333
 J., 333
 D., 336
 H.K., 337
 P.D., 339
 P., 340
 M., 341, 1184, 1185
 N.G., 341
 N.V., 932
 A.P., 918
 G.B., 1068
 A., 1132
 B.M., 1184-85-86
 T., 1210
 Bapat, B. V., 942
 Bahl, S.L., 904
 K.N., 909
 Barai, D.P., 1068
 Bardhan, J., 335
 Barlingay, S. S., 862
 Barnabas, T., 943
 Barora, N. C., 340
 Barre, H., 336
 Barsi, D. P., 1068
 Barsu, H.K., 490, 492
 B. K., 490
 Barve, G. V., 510
 Baskette, F., 810
 Basu, K. N., 164
 A. C., 338
 A. N., 432
 J. R., 492
 B., 1184
 Batta, B. D., 904
 Baweja, K. D., 166
 Begam, R. J., 598
 Behari, R., 431, 432
 Benoit, F., 45
 Benoit, S., 601
 Bewoor, G., 576
 Bhaduri, S., 336,
 P. N., 1147
 Bhagavantam, S., 852, 853, 856
 Bhagwat, N. K., 917
 Bhan, G.S., 858,
 S., 902
 Bhalla, D.N., 4
 M. D., 900
 Bhagot, M. G., 1112
 Bhandari, A.N., 898
 P. R., 1106
 Bharadwaj, Y., 160, 163
 O. P., 900
 Bhargava, D. N., 5
 Bhanumurti, C., 1200
 Bhusaria, R. M., 854

- Bhawalkar, D. R., 1009
 Bharucha, F. R., 235
 Bhasin, M. M., 1195
 Bhaskaran, R., 658
 K., 1108
 A.M., 1200
 Bhatnagar, K.P., 14
 O.P., 43
 S.S., 163, 1112
 M.S., 431
 P.P., 1210
 Bhatt, H.N., 4
 S.R., 45
 U.B., 166
 V.R., 569, 571, 573
 M.M., 661
 K.S., 668
 M., 728d
 G.H., 728c
 M.N., 943
 R.V., 1133
 M.V., 1163
 G.N., 1169
 Bhatia, M.L., 433
 B.B., 604
 G.S., 811
 S.L., 853
 Bhattacharya, K.K., 44
 P.R., 45
 D., 166
 M.M., 334
 B.B., 338
 D.K., 338
 J.C., 339
 K.C., 489
 S., 490, 1106
 P.C., 492
 U., 492
 A.T., 599
 H.K., 903
 A.K., 1008, 1009
 C., 1091
 D.L., 1166
 B.K., 339, 1184
 H.P., 1211
 Bhave, Y. S., 942
 Bhawalker, D.R., 1009
 Bhide, B. V., 942
 Bhosle, G.P., 942
 Bhusari, R.M., 854
 Bhuyan, H. C., 492
 Bijaway, M. C., 2, 6
 Birla, G. D., 1112
 Biswas, P. C., 434
 M. N., 1197
 Blaze, J. R., 396, 398, 404
 Blok, S. C., 394
 Boaz, G. D., 658
 Bodhankar, W. M., 812
 Bonhoure, A., 667
 Bora, J., 490
 Bose, B. C., 5
 S., 333, 339, 339
 P., 333
 P. K., 337
 C., 340
 A., 731
 P. N., 1003
 D.M., 1098
 S. N., 1112
 K., 162, 1183
 Boyd, A. J., 665
 Bu, H., 985
 Bulder, R.G., 810
 Buradkar, M.P., 809
 Burns, T.A., 399
- C
- Cabinetmaker, P. H., 233
 Caldicott, A., 395
 Caleb, I.D., 42
 Carmelita, M., 667
 Carter, E.P., 903
 Caspersez, U.D.R., 401
 Celdera, R., 395, 406
 Chacko, C.J., 432
 K.C., 730, 733
 Chadha, S.R., 237
 Chak, J.M., 1109
 Chakko, S., 597
 Chakravarti, D.K., 164
 C.C., 165
 G.D., 221
 M.C., 234
 A.C., 336
 M.K., 339
 A., 340
 D., 340
 K.C., 341
 N.C., 509
 S.C., 599
 C.H., 809
 S., 1091
 R.N., 1109
 K.N., 1179
 S.S., 1183
 Chalke, H.G., 337
 Chanabasaviah, K., 754

- Chand, S., 852
 R., 900
 G., 918
 T., 1003
 Chanda, K.C., 234
 Chandavarkar, V.N., 231
 Chandhuri, R.N., 44
 R.S., 166
 S., 337
 R., 338
 J.K., 339, 1098
 D., 339
 S.C., 340
 N.N., 432
 N.K., 603
 K.R., 604
 T.P., 910
 A.K., 1002
 K.P., 1091
 G.R., 1106
 K.A., 1132
 D.C., 1186
 Chandi, P.T., 4
 P.J., 810
 M. G., 1026
 Chandnani, J.J., 1147
 Chandra, I., 1008
 Chandrasekharan, K., 660
 Chanmugam, P. K., 398, 402, 407
 Chapman, J. A., 919
 Char, T. L. R., 1162
 Charan, R., 164
 Charbe, T. G. K., 1001
 Chatterji, S., 334, 336, 1184, 1185
 N., 336
 S.C., 492, 910
 A.C., 595, 596, 602
 B.N., 595, 606
 C.D., 600
 N.L., 600
 C., 605
 G.G., 606
 G.K., 1091
 S.K., 1106
 P.K., 1126, 1179
 D., 1147
 S.K., 1169
 A.B., 1210
 Chattopadhyaya, K.C., 43
 K., 336
 Chaturvedi, G. R., 1
 Chellam, J., 664
 Chelvanayakam, V., 395
 Chelvarajah, T., 404
 Chennakesavan, B., 660
 Chettiar, M.A.M., 135
 A.C., 136
 L.P.K.R., 136
 Chetty, S.T.K., 71
 Chhabra, B.D., 902
 Chibber, H.L., 163
 Chidambaran T. V., 232
 Chimanlal, I., 507
 Chinappa, J.C.V., 395, 398, 408
 Chinoy, J. J., 433
 Chiplonkar, G. W., 1009
 Chitale, S.G., 237
 H.D., 1002
 Chitanavis, M. G., 809
 Chitnis, M. B., 862
 Chopra, R. S., 900
 B.N., 903
 R.N., 918
 Chona, B.L., 1147
 Chowdiah, A.M., 733
 Chowfin, E.H., 598
 Coleman, F.L., 1199
 Collins, E.G., 1069
 Comber, T.A., 337
 Contractor, G.P., 1210
 Cooray, G.H., 398, 402, 408
 Cornelius, M., 135
 Coyajee, J.C., 917
 Cruickshank, E.W. H., 918
 Kumaraswamy, A.M.K., 394

 D
 Dabholakar, S.G., 942
 Dadabhoy, J., 405
 Daji, J.A., 942
 Daksbinamurty, C., 1147
 Dalvi, G.R., 236
 Danle, V.P., 943
 Damodaran, D., 75, 666
 G.R., 666
 Dandapani, B.S., 665
 Dandekar, R.N., 1096
 Daniel, P.E., 1199
 Dantwala, M.N., 232
 Dar, S.L., 162
 Das, K.K., 71
 B., 173
 B.N., 234, 1211
 S.K., 339
 D.L., 340
 C., 489
 M.C., 489, 492
 R.B., 492
 R., 492, 1009
 S.M., 602

- P., 604
 B.C., 1069
 S.C., 1070
 N.B., 1147
 A., 1165
 R.K., 1184, 1185, 1186
 T. P., 1184, 1185
 S., 1186
 Dasannacharya, B., 163
 Das Gupta, J.K., 4
 A.K., 161
 S.C., 161
 J.N., 162
 G.P., 167
 B., 333
 S.R., 338
 S., 432, 434, 599
 D.C., 490
 S.N., 596, 1600, 602
 B.N., 606
 N.N., 1184, 1185
 Dastagir, G., 861
 Datta, P., 489
 G., 492
 K.K., 910, 919
 D.M., 910
 H., 1091
 Dattagupta, A.K., 340
 R.K., 492
 Dattatreya, K., 171
 David, D., 665
 Dayala, A.M., 3
 J., 602
 P., 910
 De Age, E., 810
 De A. Wijjyesekera, O.H., 398, 399
 Deb, S.C., 42
 R.N., 45
 Dekate, Y.G., 809
 De Lanerolle, J., 398
 De Mel, V.E.H., 395
 Deodhar, G.B., 43
 De Quadros, A.N., 728d
 Desai, M.M., 162
 M.K., 232
 A.R., 233
 S.V., 506, 507, 510
 B.H., 507
 K.R., 508
 R.D., 508
 K.L., 508
 L.R., 509
 M.D., 510
 L., 728d
 M.H., 900
 B.M., 943
 De Sales, M., 492
 De Saram, G.S.W., 398, 403
 R.S., 399
 De S. Gunasekera, H.A., 396
 Deshmukh, C.D., 1179
 Deshpande, V.V., 166
 S.M., 173
 K.S., 572
 L.B., 852
 R.B., 1147
 De Silva, B.L.T., 395, 398, 402
 S.P.J., 406, 408
 P.C.C., 398
 L.M., 405
 De Souza, A.T.A., 394
 A., 506, 509
 V.L., 753
 C., 754
 De Soysa, V. P., 404
 Deva, N., 160, 170
 S., 171
 Devadutt, V. E., 1197-1199
 Devasahayam, C., 1199
 Devi, M. S., 75
 Dewett, K.K., 900
 Dey, B., 45
 S.C., 161, 1199
 D.L., 338
 K.C., 341
 B.K., 341
 N.C., 734
 N.N., 1109
 U.N., 1109
 M.L., 1184-85-87
 Dhar, N.R., 43, 918
 U.S., 173
 C.K., 338
 S., 341
 M.L., 1105
 D.C., 1106
 Dharmarajan, G.A., 662
 Dhawan, G.N., 600
 Dhawan, S., 1164
 Dhayagnde, R.G., 237
 Dhillon, H.S., 903
 G.S., 1133
 Dhulia, D.T., 45
 Didolkar, S., 808
 Digna, M., 664
 Dikshit, R.C., 160
 V.K., 234
 M.G., 1009
 S.K., 1096
 Dimmit, M.A., 599
 Din, S.N.T., 1200
 Dissanayake, S.B., 407

Divatia, H.V., 504, 506
 Divien, E., 662
 Diwakar, R.R., 909
 Doja, M.Q., 911
 Donde, M.V., 576
 Dongerkery, S.R., 232
 Dubey, D.S., 44
 R.N., 44
 V.S., 163
 K.L., 807
 G.P., 910
 Dudani, A.T., 1106
 Duraiswami, M.S., 135, 853, 854
 Durrani, U., 734
 Dustoor, P.E., 42
 A., 233
 Dut Mozumdar, S., 1186
 Dutt, S.K., 44, 602
 H.K., 71
 P.C., 165
 N.K., 171
 S., 333
 N., 334
 A.K., 336
 N.C., 1179
 P.K., 1184
 Dwarkadas, R., 233
 Dwivedi, H.P., 161
 R.A., 161
 V.N., 605

E

Eagleton, W. G., 752
 Ehrenfels, U.R., 660
 Ehrhart, X., 665
 Ekambaram, S.K., 735
 Elhance, D.N., 44
 Eliezer, C. J., 398, 401, 425
 Emerson, M., 337
 Engineer, A.D., 604
 Enright, R. S., 394
 Ezhuthachan, K. N., 661

F

Fariq, K. A., 432
 Farooq, M. O., 732
 Farugi, K.A., 432
 L. A., 855
 Fernando, P. B., 397, 398, 403
 W., 398, 402
 A. C., 404
 S., 404

Fonseka, E.L., 398, 402
 Foulger, T. R., 657, 663
 Fowler, G.J., 919
 Franco, J., 662
 Frayn, M.J.C., 337

G

Gabrielle, M., 664
 Gadgil, V. M., 856
 D. R., 919, 943
 Gaind, K. N., 901
 Gairola, S. S., 165
 Gajendragadkar, P. B., 232
 Ganapati, P. N., 72
 Ganapathy, S., 1167
 Ganghey, C.A.M., 398
 Ganguli, S., 337
 N. L., 341
 B. N., 433
 P. B., 940
 R. B., 1211
 Ganju, P. N., 733
 Gantayat, S. N., 69
 Garde, D.K., 942
 Garg, B. L., 172
 L. S., 1002
 Ghani, M.M., 662
 Ghosh, H., 3
 S.C., 43
 M.K., 44
 B.N., 335
 S.E.R., 338
 P.C., 339
 K.D., 339
 B., 341
 S., 341
 A.K., 1098
 C.S., 1166
 S.S., 1169
 N.C., 1179
 S.K., 1184, 1185
 A., 1195
 Ghatak, S. N., 1106
 Ghoshal, H., 339
 S.N., 602
 H.R., 919
 Ghurye, G. S., 233
 Gill, P. S., 733
 Giri, K. V., 1163
 Goddard, L. J., 338
 Gode, P. K., 1096
 Goetz, H., 728e
 Gokak, V. K., 573
 Gokhale, V. V., 171

Gondhalekar, J. D., 237
 Goonewardena, H. O., 405
 H.C.P., 405
 S., 407
 Gonsalves, G.F.D., 1126
 Gopal, M. H., 70
 Gopalachari, R., 1106
 Gopalakrishnan, C., 752
 H.V., 1167
 Gopalaswamy, K. V., 68
 D., 73
 Gopaliengar, N.T., 1165
 Goswami, M., 335
 Govil, K.L., 42
 Govinda, A.B., 919
 Govindarajulu, L.K., 137
 Gowda, A. C.D., 752, 753
 Goyal, S.C., 1002
 Graefe, W., 1170
 Graham, J.R., 1200
 Gratien, E.F.N., 396
 Green, T.L., 398, 400
 Grover, S.R., 903
 Guenther, H.V., 601
 Guha, B., 335
 P., 337
 B.C., 341
 R.C., 810
 S.S., 1163
 A., 1184-85, 1187
 U.C., 1186-87
 Guhathakurta, S.K., 336
 Gulasekharam, F.H.V., 395
 Gujral, M.L., 597, 603
 Gulati, K.C., 1147
 Gunjkar, K.R., 231
 Gupta, P.D., 4
 L.D., 42
 M.P., 43., 45
 J. B., 160
 G.R.P., 172
 K.C., 337
 P., 338
 C.B., 594
 N. N., 596, 604
 O.P., 598, 606
 D.D., 601
 S.P., 603
 N. P., 603
 S., 604, 733
 B. K., 605
 L. N., 853
 B. L., 899
 I. S., 900
 H. R., 901
 V., 911

C. L., 1002
 N. L., 1003
 H. L., 1009
 B.M., 1108
 S. K., 1108
 H. N., 1196
 Gupchup, N. S., 232
 Gupte, P. K., 1210
 Gyi, B., 984

H

Habibullah, V., 664
 Habile, M., 730, 731
 Hafeezullah, M., 856
 Haider, M. J., 730
 Hajela, K. S., 950
 Hall, G. N. L., 1199
 Handa, B. N., 904
 Handique, K.K., 489
 Hanshetti, G., 576
 Hanumattekar, M. G., 735
 Haq, S. F., 853, 858
 S. M. M., 911
 Hargovandas, S. A., 507
 Harisinghani, S. S., 1134
 Harper, M. H., 1199
 Harrison, E. P., 918
 M. H., 1199
 Hart, C. A., 1001
 Harvey, S.Y., 904
 Hasan, S. N., 730
 S. H., 731
 J., 855
 Hatwalne, V. G., 809
 Havemann, H. A., 1165
 Hensman, M., 662
 Hettiaratche, D. E., 398, 399
 Hiremath, R. C., 572
 Hiriyaniah, S., 753
 Hla, T., 984, 985
 U., 984
 U.A., 984
 Hli, T. B., 984, 985
 Hojer, J. A., 1026
 Holman, R.H.P., 664
 Howes, H. W., 397
 Hubback, J. A., 918
 Hudson, D. F., 1197
 Hukku, H., 6
 Hulkoti, C. C., 569, 571
 Hulse, M. A., 601

- Hussain, S., 43, 853, 858
 S. A., 43, 854
 K. A., 598
 Z., 729
 S. M., 729, 861
 B., 857
 A., 858
 A. H., 859
 M., 861
 S. Y., 910
 I., 910, 919
 Hussaini, N. S. Z., 667

I

- Idnani, M. A., 1147
 Ishwaran, K., 943
 Ismail, S., 668
 Iyengar, K. R. S., 69
 K. V. R., 161
 M. A. S., 569
 C. N. S., 752
 B. R. N., 754
 R. K. N., 1126
 B. N. N., 1166
 K. T. S., 1168
 Iyer, V. G., 166
 T. P. S., 431
 K. A. S., 594, 601
 T. S. B., 665
 S. D., 667
 K. S., 668
 C. V. S., 1023
 A. R., 1026
 K. R. N., 1026
 S. S., 1026
 S. N., 1106
 B. H., 1162
 G. V. S., 1211

J

- Jacob, W. F., 902
 K. T., 1092
 Jacques, E. J., 665
 Jain, P. C., 44
 S. L., 170
 P. S., 172
 B. D., 433
 H. L., 810
 G. C., 902
 L. C., 919, 1009
 O. P., 1002
 B. K., 1002
 B. P., 1002
 Jalota, S., 162

- Jamkhandi, G. A., 575
 Janardan, P. B., 660
 Jatti, V. V., 572
 Jayakar, M. R., 941
 Jayaraman, V. S., 660
 Jayasekera, H. T. W., 404
 Jayasuriya, F. R., 398, 400
 Jennings, I., 394
 Jeri, A. S., 1148
 Jesudasan, C., 1023
 Jesuratnam, S., 664
 Jethi, J. L., 1003
 Jha, L. N., 160
 V. S., 808
 S., 910
 G., 918

- Jhaveri, K. M., 1216
 Jhaveri, M. K., 231
 Jhingran, V. G., 5
 Jhirad, J., 231
 Jochim, A. W. R., 399
 John, V. V., 3
 C. C., 1023
 S., 1199
 Johnson, S. E., 600
 H. E., 601

- Johri, B. P., 5
 L. N., 433
 B. N., 433
 Jordan, I. A., 601
 Joseph, B., 404
 P. C., 1026
 Josephine, M., 664
 Joshi, N. A., 45
 G. D., 160., 810
 S. S., 163
 G. B., 166
 M. V., 234
 C. B., 236
 P. N., 237
 N. G., 572
 M. D., 595., 600
 N. V., 853
 A. C., 904
 T. M., 942

- Junnarkar, S. B., 507
 F. B., 509
 Jyotishi, R. V., 160

K

- Kabali, S., 338
 Kabbur, K. H., 575 576
 Kakati, B., 489
 B. K., 490
 Kakkar, K. P., 1009

- Kale, V. G., 918
 Kaleel, M. C. M., 396
 Kalia, P. N., 901
 Kalimullah, S. G., 835
 Kallingal, J., 666
 Kallukaran, P. P., 665
 Kamachandran, C. M., 668
 Kamakhamma, B., 75
 Kamath, N. R., 234
 L. S., 574
 K. V., 667
 I. S. K., 1195
 Kamoopuri, M. H., 606
 Kamtekar, G. A., 231
 Kanal, P. V., 902
 Kanan, C. V., 857
 Kanapathipillai, K., 398-400
 Kandiah, P., 396
 Kane, O. P., 233
 J. G., 238
 Kannagara, C. W. W., 395
 Kant, S., 161, 162, 171, 901
 Kapadia, K. M., 233
 Kapoor, S. L., 171
 H. R., 221
 P. L., 433
 G. D., 489, 492
 V. D., 861
 C. L., 898
 I. M., 904
 S. K., 904
 P. N., 1002
 A. N., 1211
 Kasinathan, S., 166
 Kar, B. C., 490, 1210
 S., 1091
 A. B., 1108
 S. B., 1184
 Karmarkar, R. D., 941, 943, 1096
 Karnani, B. T., 857
 Karunakar, P. D., 74
 Karunaratne, W. I. E., 398, 408
 Karve, D. D., 942
 Karwal, G. D., 44
 Kashyap, A., 601
 Kashikar, S. G., 809
 Kasinathan, S., 166
 Katre, S. M., 943
 Kattimani, H. F., 572
 Kaul, R. N., 42
 Kaushal, D. D., 1211
 Kaushik, R. C., 1133
 Kazimi, A. A., 910, 911
 Kelkar, N. R., 812
 Kellas, J., 336, 1199
 Kellock, J., 235
 Kerkar, D. W., 942
 Kermede, C. W. D., 985
 Keshave, S., 911
 Keskar, Y. D., 510
 Keuneman, A. E., 397
 Kha, M. M., 985
 Khadey, K. M., 231
 Khan, M. A. S., 729
 S. S. A., 729
 M. A. B., 730, 733
 B. A., 731
 M. S., 731
 R., 732
 K. A., 752
 N. M. O. A., 851
 Z. A., 852
 G. M., 853
 A. M., 853
 Y. H., 854
 I. H., 855
 M. M., 856
 O., 856
 S., 857
 M. H., 857
 A. H., 858
 W., 860
 S. M. A., 860
 A. W., 861
 A. R., 1147
 Khanna, V. N., 604
 N. M., 1106
 Khanolkar, V. R., 942
 Khardekar, B. M., 943
 Khari, K. L., 6
 Khastgir, S. R., 163
 Khosla, M. C., 903
 Khorana, M. L., 234
 Khundmini, S. A., 859
 Khurana, L. C., 903
 Kidwai, A. R., 732
 M. R., 5
 Kitchulu, P. K., 433
 Kin, U. Y., 984
 Kishore, J., 161
 A. J., 594
 N., 904
 Koch, A. C. E., 398, 408
 Kochak, U. S., 45
 Kokan, M. Y., 661
 Kolhatkar, V. Y., 728
 Koman, V., 662
 Koshy, K. T., 1022
 Kothari, D. S., 431, 433
 Kotwal, G. R., 509
 Kramrisch, S., 333

- Krishna, V. S., 68
 G., 859
 J., 1001
 Krishnamachari, S. T., 75
 Krishnamurti, S., 136., 660
 Krishnan, K. V., 240, 658
 G., 659
 R. S., 1164
 A. A., 1210
 Krishnaswamy, S., 659
 N. S., 666
 V. S., 1132
 K.R., 1162
 Krishnayya, G. S., 573
 Kshirsagar A. M., 234
 Kularatnam, K., 398, 400
 Kulkarni, G. S., 572
 P. H., 809
 B. S., 856
 Kulshrestha, M. P., 173
 Kumar, K., 4
 B. R., 665
 D. A., 898
 S., 901
 R. K., 903
 L. S. S., 942
 N., 1003
 Kumria, R. R., 903
 Kunchithapatham, 1170
 Kundanani, K. M., 236
 Kunhiraman, C., 663
 Kunwar, K. B., 604
 Kuriathodam, J., 1026
 Kuriakku, P. T., 668
 Kuriyan, G., 658
 Kuthiath, M., 1026
 Kutumbiah, P., 666
 Kutty, D., 605
 Kyi, T., 985
- L
- Labhaya, R., 899
 Labrooy, W. J. F., 396
 Lacey, W. G., 918
 Laddha, G. S., 660
 Lakadawala, D. T., 232
 Lakskar, L. R., 807
 Lakshmanamurti, M., 70
 Lakshminarasimhiah, M., 752
 Lakshminaryana, C. N., 1164., 1170
 Lall, A. B., 43, 1134
 M. B., 161
 S., 165, 902
 A., 166
 M. B., 602
- R. B., 606
 N. R., 852, 860
 S. M., 854
 N., 898, 905,
 K., 900
 B., 901
 H., 902, 910
 D. N., 911
 Lala, S. G., 172
 Laungani, V. M., 1134
 Latif, A., 730., 734
 Law, S. C., 1179
 Laxmiranjanam, K., 855
 Lay, U. K., 984
 Leber, A., 730, 734
 Leonard, E. X., 492
 Lewis, D. R., 985
 Lillian, M., 662
 Limaya, V. D., 1132
 Lingaiah, B. S., 753
 Lingappaiah, G. S., 659
 Linnel, G. M., 853, 859
 Little, G. B., 394
 Livera, E. J., 398, 400
 Lokras, G. K., 1009
 Londhey, D. G., 812
 Loomba, A. L., 596, 601
 Lucas, A., 407
 Ludekins, W. L. W., 407
 Ludowyak, E. F. C., 397, 398, 400
- M
- MacBain, J. W., 1188
 Mackintosh, J., 919
 Madan, J. N., 900
 Madhavan, A. P., 660
 R., 660
 Madhakar, R. B., 859
 Mahadevan, C., 72
 T.M.P., 658
 K., 1165
 M.N., 1170
 Mahajan, C.V., 1, 3
 M.C., 898
 Y.S., 943
 P.V., 1211
 Mahajani, G.S., 431
 Mahalanobis, P.C., 1179
 Mahalingam, T.V., 658
 Mahanti, P., 335
 A.B., 1068
 B., 1069
 J., 1069
 Mahboob, S., 1106
 Maheshwari, P., 433

- Mahulikar, S.D., 1165
 Mailvaganam, A.W., 397, 398, 401, 402
 Maitra, S.K., 161
 S., 334, 335
 B., 338
 Majajan, G.C., 903
 Major, M.P., 808
 Majumdar, K., 43, 45
 B.B., 221
 I.B., 338
 S., 359, 1091
 S.K., 340
 G.C., 341
 R.C., 433
 B.K., 507
 K.J., 728c
 Mal, K., 898
 Malalasekera, G.P., 397, 398, 399
 Malani, V.P.S., 167
 Malaviya, M.M., 177
 B.K., 603
 Malhotra, P.C., 6
 S.K., 900
 Malik, R.R., 904
 Malkani, A.B., 5
 T.J., 1147
 G.R., 1148
 Manlal, S.S., 1133
 Malwad, S.S., 572, 574
 Manerikar, R.B., 942
 Mangalik, V.S., 595, 603
 Mangrulkar, Y.B., 809
 Mani, K. M., 1024
 Manian, K. S., 1183
 Manjunath, B. L., 751
 Mansinha, M., 1068
 Marley, B.H., 666
 Marsden, G.H., 1026
 Marshall, D.N., 232
 Mary, T., 666
 Masaldan, P.N., 600
 Masani, N.J., 1133
 Masih, S., 597
 Mason, E.D., 662
 Mathad, F.G., 858
 Mathew, A.V., 943
 Mathiapparanam, K., 425
 Mathias, T.A., 662
 Mathur, L.P., 1
 M.C., 5
 K. P., 5
 B. S., 6
 K.B.L., 433
 R B., 599
 S.B.L., 602
 S.N., 603
 G., 900
 R.N., 904
 V.P., 1133
 Maung, U. T., 984
 U. E., 984
 Mawalankar, S. R., 45
 May, D.Y., 985
 P.F., 1199
 Mc Gaughey, C. A., 406
 Mckeag, R. H., 398, 406
 Med, J., 664
 Meemamsi, G. B., 1169
 Meenakshisundaram, S., 71
 T. D., 135
 Mehra, M.R., 44
 G.K., 492
 S. R., 898, 904
 P. N., 900, 901
 Mehrotra, B. N., 596
 K. K., 42
 R.M.L., 603
 Mehta, J.K., 44
 K. R., 164
 U.H., 233
 J.M., 508
 H., 728c
 M.C., 728c
 Melkote, G.S., 853
 Mendis, G. C., 395, 398, 400
 Mene, P. S., 809, 811
 Menezes, L. M. A., 509
 Menon, C.N., 161
 A. S., 569, 573
 K.N., 659
 K. P. G., 664
 A. G., 664, 1023
 I. N., 665
 T. K. N., 728d
 V. K. N., 910, 939
 S. K., 950
 T. C. S., 1022-26
 V. K. G., 1026
 Mensinkai, S. W., 573
 Min, U. M., 984
 Mirchandani, T. J., 432, 1146
 Mirza, M. W., 600
 M. B., 730, 732, 733
 H. A., 860
 Misra, L. N., 5
 H. R., 6
 R. A., 7
 K. L., 42
 U., 43, 807
 A. B., 160, 163, 170
 V. P., 162

- S. S., 587, 604, 606
 S. C., 597, 604
 M. G., 598
 K. S., 598
 B., 601
 R. C., 602
 R. D., 603
 C. P., 604
 R. N., 605
 S. K., 808, 811
 P. N., 809
 B. R., 910
 S. B., 918
 B. P., 1008
 M. L., 1008, 1009
 R., 1008
 J. N., 1009
 P., 1008
 S., 1068, 1170
 D., 1068
 Mital, P. C., 595,
 K., 1002
 Mitra, A. K., 45, 490
 D. P., 162
 S. K., 333, 335
 K., 334
 P. B., 337
 C. C., 339
 R. P., 433
 S. C., 603
 M. N., 810
 N. C., 1091
 M. S., 1210
 Modak, N. V., 232
 Mody, T. K., 506, 510
 P. M., 509
 A. C., 728c
 Mohammad, B. G., 560
 G., 560
 S., 855
 Mohan, M., 3
 Mohanty, B. C., 660
 Mohiley, K. P., 42
 N. G., 509
 Mohiuddin, N. K., 854
 G., 861
 Mohogaonkar, V. P., 812
 Moore, H. M. M., 395
 Mosher, A. T., 46
 Moudgill, J. N., 1002
 Mudaliar, A. L., 657
 D. S., 657
 B. M. L., 657
 P. D. S., 658
 M. S., 664
 K. A., 667
 A. R., 1022
 Mujib, A., 732
 Mukerji, S. S., 809
 A. S., 45
 G. C., 165
 K. P., 233
 H. C., 332
 S., 333, 810
 H., 335
 S., 337, 810
 N., 338, 490
 H. M., 339
 A. N., 339
 R. K., 599, 600
 D. P., 600
 R., 601
 S. M., 900
 R. K., 918
 B., 1105
 A., 1108
 S. K., 1183
 A., 1186
 N. N., 1197
 Mulla, T. S., 729
 Mundle, A., 337
 Munceruddin, K., 854
 Muniratnam, T., 661
 Munshi, K. M., 1, 41, 159, 594, 729
 M. C., 1170
 Murugamanickam, P., 660
 Muranjan, S. K., 236
 Murti, T. R. V., 162, 171
 N. N., 231, 235
 T. R. V., 398, 401
 N. K., 735
 V. S., 809
 N. V. K., 852
 K. S., 1070
 C. R. K., 1106
 G. S., 1147
 A. R. V., 1162
 Muthanna, M. S., 1162
 Muthia, V. C., 662
 Muthunayagam M. A. E. B., 398, 406
 Muthuswamy, B., 72
 Myint, U. K., 984, 985

 N
 Nabar, G. M., 233
 Nadaraja, T., 398, 400
 Nadaraser, S., 401
 Nadesan, S., 396
 Nag, N. C., 163
 Nagabhushanam, K., 73

Nagaich, N., 432
 Nagappa, N., 752
 Nagaraj, C. N., 1168
 Nagchaudhury, B., 334
 B. D., 1133

Nagvi, S. A. N., 606

Naidu, P. S., 44
 T. V. R., 73
 M. R. R., 75
 S. P., 75
 D. V., 76
 P. R. J., 659
 B. R. P., 661
 S. S. R., 662
 R. J., 662
 T. P. S., 663
 B. R. K., 664
 M. G. C., 752
 I. C., 861
 V. S., 810, 1023
 V. R., 753
 B. K., 753

Naik, K. N., 232
 K. G., 504

Nainar, S. M. H., 661

Naithani, S. P., 45

Nand, S. A., 161
 N., 1105

Nandan, R., 1002

Nandi, A. K., 1069
 P., 1098

Nandimath, S. C., 573

Narang, K. S., 900

Narasiham, D. V., 734

Narasimhachari, T., 70., 76
 T. B., 943

Narayan, A. L., 75

(Narain), S., 167
 A., 221
 K., 221, 1024
 R., 599, 904
 D., 603
 G., 752
 J., 898
 B., 910, 911, 940, 1002

Narayanamurthi, D., 1133

Narayananan, P. S., 1164
 M. S. T., 1167
 P. I. A., 1210

Narayanaswamy, K., 1165

Nargund, K. S., 572

Narlikar, V. V., 160, 170, 919

Narsau, R., 860

Natarajan, K., 135

S., 858, 1163

Natesan, R., 74

S., 396, 399

Nath, P., 162, 165

R., 163

M. C., 809, 811

J., 901

V., 902

N. S. N., 910

Navanita kirishna, T. P., 136

Nawaz, M. S., 861

Nayar, M. R., 602

(Nair) S. K., 661

T. B., 662

K. S., 857

K. B., 1023

U. S., 1023

N., 1167

M. P. G., 1024

P. V., 1025

S. L., 1105

K. R., 1132

K. K., 1134, 1169

Nu, U., 984

Nazeeruddin, A. A., 858

Nehru, J., 1086, 1091

Neh, A., 397, 399

Neogi, B., 45

J., 334

Netarwalla, M. P., 165

Nijhawan, B. R., 1210

Nilkantan, K., 136

Ninan, C. P., 1025

Nirula, R. L., 810, 812

Nizamuddin, M., 855

Noronha, F. J., 751

Nugawela, E. A., 395

O

Oak, M. R., 1148

Ojha, K. N., 606

On, U. H., 985

Osmani, M. A., 852

Oturkar, R. V., 943

P

Pachow, W., 45

Padhi, N., 1069

Padhye, M. R., 234

Pai, A. G., 1161

Fal, S. C., 338

S. K., 338

N. C., 1001

B. P., 1146

Palainappan, N. P., 137

- Palaniswami, S., 665
 Pan, M., 340
 Pande, P. G., 2, 5
 R. R., 160
 M. S., 160
 R. V., 161
 R. E., 161
 A. E., 162
 R. B., 162
 V. P., 165
 M. C., 165
 K. C., 601
 S. K., 602
 P. C., 809
 R. K., 858
 A. L., 1008
 C. C., 1199
 R. N., 1008
 Pandharipande, S. L., 812
 Pandit, M. K., 861
 K. G., 942
 G. V., 942
 Pandya, G. B., 728d
 K. R., 807
 Panjwani, N. B., 1211
 Panikkar, P. K., 665
 P. R. P., 1022
 Panoandkar, S. S., 236
 Papatla, P., 1068
 Pant, A. G., 6
 R., 45
 Papali, G. F., 1026
 Paramasivayya, G. S., 569, 571, 573
 Parija, P., 163, 1068
 Parikh, R. C., 506, 510
 Parthasarathi, R., 1003
 Parti, C. L., 903
 Passc H. A., 425
 Patankar, V. S., 235
 B. L., 942
 Pate', B., 231
 G. I., 231
 C. S., 232, 728c, 728d
 M. D., 506, 507, 509
 B. D., 507
 B. R., 507
 R. P., 508, 510
 B. A., 508
 I. L., 576
 C. C., 1162
 Pathak, G. N., 4
 B. S., 45
 S. P., 171
 B. L., 1008-9-10
 R. N., 1008
 Patil, T. K., 572, 573
 Patnaik, K. B., 1069
 D., 1069
 Patravali, D. P., 942
 Patro, A. P., 1184
 Pavamani, V. G. M., 664
 Paul, M., 398, 404
 R. H., 398, 408
 S., 657, 663
 Paulus, T. S., 74
 Patwardhan, P. J., 811
 Patvari, V. N., 854
 Pavate, D. C., 231, 571
 V. C., 572
 Pciris, M. V. P., 398, 405
 P. R., 401
 Perdse, S. D., 810
 Peter, J. S., 75
 O. E., 1133
 Pereira, J. C. F., 337
 L. P. N., 296
 E. O. E., 397, 408
 H. V., 397
 P. O. E., 398
 Pfestorf, G. K. M., 1167
 Phadke, R. B., 942
 Phillips, T. B., 1199
 Philomena, 665
 Pieris, E., 396
 Pillai, K. S., 74
 A. R., 135
 K. P. K., 135
 G. S., 136
 C. S., 137
 P. A., 396, 397, 399
 P. K. P., 596
 T. M. N., 658
 R. P. S., 661
 K. P. A., 665
 P. T., 668
 P. P., 918
 M. K. G., 1022
 M. N. K., 1023
 K. P., 1023
 V. R., 1023
 N. G., 1024
 P. K. K., 1026
 S. C., 1063
 Pisharoti, K. N., 663
 Popli, S. P., 1106
 Pctdar, D. V., 942
 Poti, A. N., 1023
 Prabhu, N. U., 572
 Pradhan, K. D., 337
 S. N., 1109

Pradhan, S., 1147
 B., 1199
 Prakasa, S., 68, 657
 B., 1166
 Prasad, K., 2
 S., 6, 164
 I., 43
 G., 44, 903, 917
 B.N., 44, 910
 R., 159, 729, 949, 1147
 B., 172, 422, 1068
 K., 596, 599
 B.G., 604
 J., 810, 1002
 A.N., 910
 N., 910
 C., 1002
 Pratap, D., 172
 Punnaiah, K. V., 75
 Punnaiah, K. V., 666
 Puntambekar, S. V., 1133
 Puri, B. R., 900
 H. R., 1003
 Purkayastha, B. C., 1184-85-86
 Purushotham, A., 1133
 Purushottaman, C., 172
 T. A., 753
 Purushottan, T. A., 752
 Puttappa, K. V., 752
 Pylee, L. M., 664

Q

Qadir, S. A., 666
 M. A., 854
 Qanungo, K. R., 599
 Qateel, A. H., 855
 Quaraisni, R. A., 660
 Q. H., 859
 Quddus, H. M., 910
 Qutabuddin, Q., 853

R

Raddi, S. K., 575
 Radhakrishnan, S., 334, 431
 Rafiuddin, S., 810
 Raghavacharyalu, M., 75
 Raghavan, V., 661
 K. S., 852
 M. R., 1165
 Raghunathan, S., 859
 Ragland, S. P., 75
 Rahman, M. K., 855
 M. A., 1132

Rahman, F., 221
 H., 730, 732
 S. A., 861
 Rai, R. N., 433
 J., 902
 Raizada, A. K., 595
 M. B., 1132
 Raj, H., 604
 Raja, K. K., 661
 M. U. V., 662
 Rajagopalan, R., 1163
 Rajkhowa, S., 489
 Rajalakshman, D. V., 659
 Rajaram, C., 137
 Rajratne, K. M. P., 396
 Raju, P. V., 137
 P. T., 950
 Ram, K. A., 862
 R., 900, 902
 S., 903
 W., 903
 V. S., 918
 A., 1112
 J., 1167
 G. J., 1170
 Ramachandani, W. N., 1134
 Ramachandrayya, G., 70
 Ramachandran, G. N., 659
 Ramakrishnan, K., 659
 A., 659
 B. S., 1168
 Ramakrishnarao, A., 73
 Ramalingayya, B. M., 573
 Raman, C. V., 71, 163
 S. V., 73, 859
 Ramanadham, V. V., 71
 R., 71
 Ramanathan, K. R., 510
 V., 1026
 Ramanujaswami, P. V., 668
 Ramanujachariar, R., 137
 K., 856
 Ramaseshan, S., 1164
 Ramashandran, E. C., 1166
 Ramaswami, V., 70
 G. S., 137
 A. S., 1163
 Ramban, P. E. D., 1026
 Ramiah, R. V., 1147
 Ranasinghe, D. A., 398, 406
 Rane, V. M., 165, 170
 Ranganathan, C. R., 1132
 B., 1163
 Ranganayakulu, I., 75
 Ranganna, S. V., 752

- Rangaswami, S., 73
 M. A. D., 661
 Rangnekar, S. B., 900
 Ranjan, S., 44
 Rao, L. S., 69
 B. T., 69
 K. R., 70, 71, 73
 B. S., 71
 G. G., 72
 B. S. V. R., 72
 V. N., 73
 C. B., 74
 L., 74
 V. S., 74, 75
 P. R., 75, 663
 T. R., 75
 K. V. N. A., 75
 S., 171, 855, 857
 D. N., 172
 K. S., 234
 V. K. R. V., 432, 433
 P. N. N., 573
 N. M., 574
 A. V., 599
 A. R., 602
 S. R. N., 602
 C. K. P., 657, 663
 M. A. G., 658
 V. L. S. P., 658
 B. S. V., 661
 N. V., 661
 M. G., 661
 H. S., 666
 M. N., 752, 754
 B. S. M., 752
 S. R., 752, 1179
 L. N., 753
 M. V. K., 753, 1023, 1024
 S. V., 753
 M. B. S., 753
 G. S. R., 754
 E. B., 808
 K. S., 809, 811
 G. K. J., 810
 B., 854
 V., 857
 P., 858
 P. L. N., 853
 R., 852, 857-59
 J. C. K., 860
 S. K., 860
 T. S. M., 1003
 M. V., 1024-25
 V. K. M., 1106
 R. R., 1109-1211
 R. A., 1162
 P. L. N., 1163
 C. V. J., 1164
 M. R. K., 1165
 N. N. N., 1165
 H. N. R., 1166
 P. V., 1167
 N. S. G., 1167
 S. K. L., 1168
 V. N., 1169
 S. K. R., 1170
 B. V. R., 1170
 T. B. S., 1170
 C. R., 1179
 Rashid, S. A., 730, 731
 M. A., 856
 G. D., 859
 Rastogi, R. P., 1106
 Rath, G. C., 1068
 B. N., 1068, 1070
 Rau, M. A. G., 660
 T. H. S., 1110
 Ray, N., 334
 P., 336
 R. G., 338
 A. K., 339
 S., 339
 S. R., 341
 H. C., 398, 400
 R. C., 919
 C., 1109
 Reddy, B. G., 68
 G. S., 71
 C. D., 853
 Reich, V., 398, 400
 Reporter, E. S., 861
 Richharia, R. H., 221
 Rizavi, S. M. H., 600
 Rizvi, S. M. T., 732
 H. A., 857
 Robins, G., 399
 Rodrigo, J. L. C., 397, 398, 401, 425
 Roper, E. M., 397
 Row, P. S., 1164
 Roy, H. N., 164
 N., 337
 H. K., 341
 S., 341
 A. C., 492, 1108
 B., 599
 S. C., 601, 917
 R. P., 910
 R. L., 911
 K., 1091
 D., 1091

- Roychoudhary, P., 221
 S. P., 1147, 1187
 Rozdon, P. N., 163
 Rudra, A. B., 919
 Rudrapati, S., 752
- S
- Sabastian, P. V. R., 852
 J. J., 858
 Sabbarwal, D. C., 489, 490
 K., 597, 599
 Sadakar, V. D., 858
 Sadasivan, T. S., 657, 659
 Saha, A. K., 1184-85
 M., 334, 918
 N. K., 433
 N. C., 730, 733, 734
 M. N., 1112, 1183, 1186, 1187
 Sahai, B., 2, 4
 H., 604
 R., 42
 Sahani, T. D., 811
 P. B., 1002
 Sahaya, S., 220
 J., 909
 Sahgal, S. P., 861
 Sahi, H. P., 6
 Saifuddin, T., 729
 Saini, H. R., 904
 Saklaini, M. M., 1134
 Saksena, R. N., 4
 B. P., 42, 43
 B. R., 43
 R. K., 44
 K. R., 46
 S. N., 171
 S. S., 950
 M. N., 1003
 K. C., 1106
 Sakuntala, N., 664
 Salahuddin, M., 854
 Salam, A., 855
 Samaddar, J. N., 918
 Samant, D. R., 232
 Samartha, S. J., 1200
 Sambamurti, P., 658, 662
 Samuel, G. R., 663
 Sandegren, J., 1199
 Sandil, J. B., 509
 Sankaran, A., 664
 V., 807
 Sankhale, R. S., 173
 Sant, B. R., 173
 Santha, E. K., 1026
 Santhappa, M., 659
- Sanwal, H. M., 605
 Sanyal, P. C., 336
 S. N., 903
 Sapru, T. N., 44
 Saraf, B. L., 1008-9
 Saraswati, K. K., 339
 Saravanamuthu, A., 396
 Sarbadhikari, P., 335
 Sardar, P. K., 1195
 Sardani, G. S., 918
 Sarkar, P. B., 335
 B., 335
 N. K., 336
 R. N., 339
 H. B., 340
 K. C., 595, 596, 606
 J. N., 917, 918
 S. C., 918
 N. R., 919
 G. N., 1183
 Sarma, P. S., 659
 P. A. K., 668
 Sarna, H. R., 901
 Sarwari, A. Q., 855
 Sastri, S. S., 661
 S. R., 661
 Y. M., 667
 K. A. N., 753
 H. P., 918
 M. P., 431
 Sastrigal, B., 667
 Satsangee, P. P., 151
 Satwalekar, S. D., 862
 Savarirayan, S. J., 665
 Savur, S. R., 71
 Sawney, B. S., 893
 Sayal, R. D., 900
 Sayeed, M. J. M., 665
 Sayeeduddin, M., 855
 Scores, N., 1200
 Scott, R. W., 1199
 Secthamal, P., 665
 Sein, M., 965
 Selliah, K. A., 397
 Sen, S., 70, 903, 1147, 1211
 D. K., 234
 N., 334
 P., 335
 B. B., 336, 1184-85
 A. K., 336
 J., 337
 G. D., 339
 A., 339, 808
 P. K., 340
 S. K., 340, 1184
 S. C., 432

- A.B., 602
 V.R., 808
 J.C., 900
 U., 903
 D.L., 905
 H.K., 919
 N., 1091
 D.N., 1112
 S.B., 1179
 B.L., 1211
 Senewiratne, V.E.P., 407
 S.T., 425
 Sengupta, B., 7, 337
 Seshachar, K., 668
 B.R., 752
 Seshadri, T.R., 433
 Seshagiri, P.V.V., 72
 Seshaiya, R.V., 136
 Seth, S.C., 808
 J.B., 906
 B.L., 1008
 Sethi, B.L., 2, 4
 N.K., 3
 R.L., 166, 171
 R.R., 901
 M.L., 902
 S.C., 1195
 Sethna, D.P., 237
 Shafi, S.M., 730, 732
 Shah, N.M., 231, 508, 509
 C.H., 232
 S.M., 233, 733
 M.S., 506, 508
 P.G., 507
 C.M.S.M., 664
 M.M., 811
 K.T., 918
 Shakoor, A., 6
 Shan, Y., 1091
 Shankar, S., 595
 Shanmugam, T.E., 658
 M.K., 663
 Shanmughasundaram, E.R.B., 659
 Sharan, S., 167
 P., 432
 Sharma, L., 5
 B.L., 7
 G.R., 43
 G., 160
 J.P., 162
 V.L.N., 172
 R.R., 490
 J., 492
 B.N., 596
 G.S., 596, 605
 B.M., 600
 P.N., 602
 D.N., 604
 S.L., 606
 E., 662
 H.L., 732
 G.L., 808, 812
 M.P., 809, 810
 A., 855
 D.C., 898, 900
 G.P., 902
 S.R., 942
 V.N., 1105
 R., 1109
 Shastri, K.R.R., 44
 M.G., 74
 G.N., 75
 S., 75
 K.S., 76
 V., 160
 R.D., 160
 H.B., 161
 R.D., 167
 K.V.N., 668
 N.S.N., 1169
 Shete, M.K., 1009
 K., 1106
 Shibayev, V., 434
 Shivaramaiah, K., 1169
 Shridevi, K.S., 812
 Shrimali, K.L., 951
 Shodangi, M., 71
 Shukla, S., 596
 P., 596
 K.N., 601
 S.N., 602
 R.C., 603, 1109
 G.S., 807
 R.S., 1008-9
 S.O., 1195
 Siddiqi, M.Z., 333
 Simon, L., 1132
 Simlai, B., 42
 Singh, R.K., 4
 H.N., 5
 Ch.S., 6
 Th.J., 6
 D., 6
 A.N., 7, 603
 B.K., 43
 T.C.N., 136
 B.K., 163
 R.N., 164
 B.M., 165
 G., 170
 V., 171, 809
 R.B., 172

- Singh, B.N., 172
 S.N., 172
 D.P.N., 173
 R.P., 220
 K., 560,810,904
 R.U., 595,605
 B., 596,600
 S.B., 596
 R.V., 604
 D.B., 658
 R.S.N., 856
 B.J., 898
 B.B., 898
 B., 898,904,950,1002
 S., 898
 T., 898,903
 J., 900,903,1134
 P.P., 901
 M., 901,903
 N., 901,903,1134
 S.I., 902,903
 R.M.C., 902
 B.H., 902
 S.H., 902
 G.P., 904
 S.K.V., 904
 S.S., 904,1009
 R.C., 909
 A.D., 910
 S.M., 950
 S.R., 1001
 S.G., 1069
 N.N., 1126
 U., 1134
 R., 1210
 Singhal, J.P., 6
 Sinha, B.M.K., 220
 K.P., 221
 S.M., 595
 B.N., 605
 H.N., 808,810,812
 R.N., 809
 B.K., 910,911
 D.N., 910,911
 P.C., 910
 R.K., 910
 S., 911
 G.N., 940
 I.L., 1069
 R.P., 1174
 Sirsi, M., 1163
 Sitaramayya, B.P., 807
 K., 1167
 Sitther, C.T., 1199-20
 Sivalingam, V., 403
 Sivaramakrishnan, N.H., 1162
 Sivasubramaniam, L.R., 431,434
 Slater, R.G., 40
 Sogani, C., 164
 Solagram, A., 236
 Somadasa, K.D., 394
 Somayaji, G.J., 71
 V.S., 75
 Soosai, K.A., 665
 Soulbury, L., 394
 Souris, S.J., 74
 Sreshta, R.R., 599
 Sreenath, A.V., 1165
 Srikantia, T.N., 572
 Srinivasan, N., 70, 665
 A., 234
 S., 666
 V.R., 1109
 N.R., 1166
 P., 1168
 K., 1168
 Srinivasaraghavan, A., 662
 Srivantiab, L., 735
 Srivastava, P.L., 44
 G.D., 44
 N.D.L., 44
 L.N., 595
 J.N., 597
 B.N., 602
 R.S., 603
 K.K., 808
 R.C., 811
 D.S., 1008-10
 G.S., 1009
 D.L., 1106
 G.N., 1109
 K.N., 1211
 Stanislas, M., 74
 Statford, M., 337
 Stock, A.G., 900
 Stork, K.G.B., 403
 Stuart, H.N., 45
 Subbaraman, P.R., 1195
 Subbaramappa, K., 752
 Subedar, M., 919
 Subharao, D., 728d
 Subharamayya, K., 76
 Subramaniam, D.S., 74
 K., 171
 C., 657
 C.V., 659
 R.S., 1162
 M.K., 1163
 V.R., 1166
 Sudarsanarao, K., 73
 Sudhindra, B., 172
 Sukhia, S.P., 5

Sultan, S., 4
 M., 731
 Sundaram, P.M., 859
 Sur, R.N., 1109
 Suri, S.R., 903
 Suroor, A.A., 600
 Suryanarayana, T., 853
 Swami, T., 338
 Swaminathan, S., 659
 S.R., 1009
 C.G., 1126
 Swarup, B., 2_j
 S., 6
 D., 160, 165
 Swayamprakasam, S., 668
 Swift, H.B.N., 898, 901

T

Tagore, R., 1086, 1091
 Taher, N.A., 855
 Taimuni, T.K., 43
 Talajia, G.G., 807
 Taliat, J., 1023
 Talib, S.G.S., 963
 Tambe, Y.S., 809
 Tamber, A.E., 397
 Tambiah, S.J., 401
 Tamhane, R.V., 1147
 Tampi, A.N., 664
 Tandon, L.C., 3
 R.N., 44, 605
 R.K., 596, 597, 598
 C.P., 604
 D.S., 1211
 Tatpati, J., 1194
 Tavakley, I.D., 6
 Tawde, N.R., 573
 Tewari, K.D., 595
 Tha, U.P., 985
 Thacker, M.S., 1161
 Thackersey, L., 1217
 Thakore, M.M., 508, 509
 C.M., 597
 Thakur, O.N., 160, 167
 M.R., 808
 Thamby, T.P., 1023
 Than, B., 984, 985
 Thangarajan, P., 666
 Thapar, G.S., 602
 Thatte, V.N., 808, 810
 G.N., 860
 Thawani, V.D., 489, 490
 Theobald, C.D., 665
 Theodosia, M., 911

Thero, D.P., 396
 B.P.M., 399
 P.V., 399
 Thigale, S.M., 942
 Thillayampalam, E.M., 665
 Thin, U.T., 985
 Thind, K.S., 900
 Thirunarayanan, M.A., 1165
 Thomas, M.M., 44
 P.C., 490
 N.A., 1026
 G., 1026
 J.P., 1134
 M.O., 1170
 T.C., 1199
 Thyagaraju, A.F., 74
 A.S., 74
 Tiejens, O.G., 1164
 Tiga, J.J.P., 1200
 Tilak, B.D., 233
 Tilloo, K.N., 810, 812
 Tiwari, S.G., 42, 45
 R., 172
 S.P., 810
 Tokhi, M.R., 811, 812
 Tolani, T.N., 942
 M.N., 950
 Topa, I., 852
 Trimothy, P., 812
 Tripathi, K.C., 43
 R.S., 161
 G., 164
 S.N., 807
 R.P., 1008
 Trivedi, N.R., 504, 506
 A.K., 509
 A.B., 510

U

Umaruddin, M., 371
 Upadhyaya, K.D., 5
 B., 161
 A.S., 918
 Uppal, H.L., 1126
 M.M., 1195
 Urs, M.B., 753
 M.M., 754
 Ushaw, A.H.S., 661

V

Vable, D.V., 7
 Vahiuddin, S., 854
 Vaidya, K.S., 853
 Vajpai, R.S., 173

Vakharia, P., 728d
 Vakil, C. N., 231, 232, 919
 Valiuddin, M., 834
 Varadachari, S.T.G., 74, 75
 Varadan, K.S., 1109
 Variar, N.V.K., 667
 Vartak, G.R., 942, 943
 Varma, D., 43
 R.K., 43
 S.C., 44, 596, 602
 M.S., 167
 R.N., 172
 M.P., 173
 P.S., 221
 G.S., 602
 H.C., 603
 R.P., 606, 910, 911
 R.R., 657
 M., 809
 P.S., 919
 B.R., 1022
 J.K.D., 1184, 1185
 Varuah, B.K., 502
 Varughese, M., 663
 T.P., 1026
 Vasu, A.S., 728c
 Vasudeva, R.S., 1146
 Vati, K.L., 903
 Vedasiromani, J., 665
 Venkatachari, V.P., 854
 Venkataraman, L.V., 172
 K., 233
 M., 658
 S.V., 1134
 Venkataramiah, K.M., 668
 Vengsarkar, S.G., 237
 Venkatarao, G., 70
 C., 72
 D.S., 72
 C.J.D., 72
 M.N., 72
 Venkataryudu, T., 71
 Venkanna, D.S., 666
 Venkataswaran, K., 162
 C.S., 1022-23-24
 Venkataswarlu, J., 72
 Venkitachalam, A., 1024
 Venkitasubramanian, F.A., 1163
 Vera, M., 665
 Vicary, T.C., 340
 Vidyalkar, V., 854

Vidyarthi, D.P., 939
 Vilma, K., 810
 Visarad, R.B., 1023
 Viswanathan, R., 431
 Vora, V.C., 1106
 Vyas, K.D., 45
 G.N., 1106
 N.D., 1147

W

Waas, M.J., 407
 Wadia, N.J., 230, 231
 Wadiyar, J.C., 751
 Wagle, M.S., 576
 Wajid, A., 667
 Wallace, M., 602
 Wankhede, S.K., 807
 Ward, W., 235
 Wazir, J.N., 560
 Weerassoriya, N.E., 396
 Weeratunga, C.E.S., 395
 Weir, J.B., 1199
 Welingkar, L.N., 236
 West, M.P., 918
 Whetstone, W.K., 1200
 Wickeremasinghe, W.E.G., 397
 Wig, K.L., 904
 Wijetunga, H.P.A., 407
 William, T., 1025-26
 Wilson, D., 599
 Winfield, W.W., 1997-99
 Wodeyar, S.S., 572

Y

Yajnik, R.K., 508
 B.S., 604
 Yazdani, M., 852
 Young, C.K., 1200

Z

Zacharias, C.W.B., 658
 Zaheer, S.H., 853, 856
 Zaidi, M.A., 861
 Zipkes, E., 1126
 Zore, S.M.Q., 860
 Zevo, R.D., 337
 Zutshi, M.N., 601
 B.K., 728c

INDEX OF DEGREES AND SUBJECTS

I. Agriculture

(a)

B.Sc. (Agr.) 11, 21, 57, 98, 210, 221,
416, 496, 535, 713,
791, 840, 894, 905,
947, 994

(b)

B.Sc. (Hons.) (Agr.), 463

(c)

M.Sc. (Agr.), 11, 110, 211, 222, 271,
423, 535, 841, 905, 947

(d)

Ph. D. (Agr.), 271, 841

II. Architecture

(a)

B. (Arch.), 295, 386

(b)

M. (Arch.), 387

(c)

Master of Planning, 387

III. Arts

(a)

B.A., 15, 53, 95, 150, 187, 221, 252-53,
354, 414-15, 450, 495, 522,
563, 615, 686, 728c, 746, 773,
827, 879, 905, 926, 947,
962, 990, 1012, 1037, 1072,
1088

Aesthetics, 773

Ancient In. His., 188, 354, 728c, 926,
1038

Anthropology, 355, 495, 615, 990

Applied Mathematics, 827, 879

Arabic, 15, 53, 95, 188, 253, 255, 354,
414, 415, 450, 495, 523, 563,
615, 746, 773, 879, 962, 1038

Archaeology, 728c, 962

Ardha Magadhi, 253, 255, 523, 728c

Armenian, 354

Ancient and Modern Far-Eastern
Hist., 990

Assamese, 354, 495

Astronomy, 879

Avesta Pahlavi, 253, 255, 523, 773

Bengali, 15, 95, 354, 450, 495, 1088

Botany, 355, 524, 687, 773, 926

Buddhist Civilization, 414

Burmese, 990

Business Administration, 773

Canarese, 150

Chemistry, 355, 524, 687, 773, 926

Classical language, 827, 879

Commerce, 450

Dravidian language, 95

Drawing & Painting, 16, 188, 687, 962

Economics, 16, 54, 95, 150, 188, 253,
256, 414-15, 450, 495,
523, 563, 615, 687, 746,
773, 827, 879, 926, 962,
990, 1038, 1088

Education, 16, 54, 253, 354, 495, 615,
746, 773

Electrical Engineering, 687

Elementary Hindi or Urdu, 746, 973

English Literature, 15, 53, 95, 150,
252, 253, 259,
(old Eng. also),
354, 414, 415,
450, 495, 523,
563, 615, 686,
728c, 746, 773,
827, 879, 926,
962, 990, 1038,
1088

European Language, 188, 252, 254

Fine Arts, 728k, 926, 1089

French, 15, 95, 150, 354, 414-15, 523,
728c, 773, 827, 962, 1038

Geography, 16, 54, 188, 355, 414-15,
524, 616, 687, 746, 773,
827, 879, 926, 962, 990

Geology, 355, 524, 687

German, 15, 45, 95, 354, 414-15, 523,
728c, 962, 1038

Greek, 15, 253, 555, 354, 414-15, 523,
728c, 962

Gujarati, 15, 523, 728c

Hindi, 15, 53, 95, 150, 188, 354, 450,
523, 563, 615, 728c, 746, 773,
879, 962, 1038, 1088

- Hebrew, 15, 253, 255, 354, 523, 728c
 History, 16, 54, 95, 150, 188, 253, 255
 354, 414-15, 450, 495, 523,
 563, 615, 687, 728c, 746,
 773, 827, 879, 926, 962, 1038,
 1088
 Hist. of Civilization, 746, 773
 Home Economics, 16
 Home Science, 16, 188, 687, 827, 926,
 962
 Indian Music, 16, 54, 96, 152
 188, 195, 563, 687,
 827, 962, 1038
 Indo-Islamic and world history, 354
 Islamic, History and Culture, 354, 687,
 746, 1038
 Italian, 15, 354, 523, 728c, 962
 Kannada, 95, 523, 773, 879
 Latin, 15, 95, 263, 255, 354, 414-15,
 523, 728c, 773, 962
 Law, 450
 Linguistics, 354, 926
 Malayalam, 95, 150, 773, 1038
 Marathi, 15, 523, 728c, 879
 Mathematics, 15, 54, 95, 188,
 253, 256, 354, 415, 450
 495, 523, 563, 615, 687,
 746, 773, 827, 879, 926,
 962, 990
 Mechanical Eng., 687
 Military Science, 16, 54, 354, 615,
 687, 746, 827, 962
 Modern European Hist., 990
 Modern Indian Language, 187, 252,
 265, 495,
 687, 827
 Oriya, 95
 Pali, 95, 188, 253, 255, 354, 414-15,
 523, 728c, 773, 990
 Panjabi, 450, 563
 Philosophy, 15, 54, 95, 150,
 188, 253, 255, 354, 414-
 15, 450, 495, 523, 563,
 615, 687, 728c, 746, 773,
 827, 879, 926, 962, 990,
 1038, 1088
 Physics, 355, 524, 687, 773, 926
 Political Science, 16, 54, 150, 188, 354,
 450, 563, 615, 687,
 746, 773, 827, 879,
 926, 962, 990, 1038
 Physiology, 355, 687, 926
 Public Administration, 773
 Persian, 15, 53, 95, 188, 253, 255,
 354, 414-15, 450, 495, 523,
 563, 615, 728c, 746, 773, 879,
 962, 1038
 Portuguese, 523
 Prakrit, 773
 Psychology, 16, 188, 253, 355, 616, 687,
 746, 880, 926
 Religion and Culture, 886
 Sanskrit, 15, 53, 95, 150, 187, 253, 255,
 354, 414-15, 450, 495, 523,
 563, 615, 728c, 746, 773, 879,
 962, 1038, 1088
 Science subjects, 253, 256, 524
 Social administration, 773
 Sinhalese, 414-15
 Sociology, 16, 253, 256, 415, 523,
 728c, 773, 879, 926, 962
 Sindhi, 450, 523
 Spanish, 523
 Statistics, 355, 495, 616, 687, 746, 879,
 Syriac, 354, 1038
 Tamil, 95, 150, 414-15, 773, 879, 1038
 Telegu, 95, 150, 773, 879
 Urdu, 15, 54, 95, 150, 354, 450, 520,
 563, 615, 728c, 746, 773,
 879, 962, 1038
 Western classics, 415
 Western music, 687
 Zoology, 355, 524, 687, 773, 926
- (b)
- B.A. (Hons.), 96, 151, 188, 354, 453,
 616, 688, 747, 774, 828,
 926, 992, 1038, 1072
 1088
- (c)
- M.A., 16, 54, 103, 152, 189, 222, 257,
 356, 423, 463, 497, 527, 564,
 617, 689, 728c, 748, 777, 827,
 881, 905, 926, 947, 963, 996,
 1012, 1039, 1072, 1088
 Ancient Indian History & Culture,
 16, 190, 257, 356, 527, 728c, 1089
 Applied Mathematics, 827
 Applied Physics, 100
 Arabic, 54, 356, 464, 527, 748, 827,
 881, 963
 Archaeology, 728c, 926
 Ardha-Magadhi, 527, 728c
 Assamese, 497
 Bangali, 1089
 Botany, 356
 Chemistry, 356

- Classical Lang., 190, 926
 Commerce, 356
 Comparative Philology, 356
 Diplomacy & International Affairs,
 16, 54, 103
 Economics, 16, 54, 190, 257, 356, 464,
 497, 618, 748, 777, 828,
 881, 905, 926, 963
 Education, 356, 497
 English, 16, 54, 100, 150, 190, 356,
 464, 728c, 748, 777, 827, 881,
 905, 926, 963
 Ethnology, 926
 French, 356, 728c
 Geography, 16, 190, 357, 748, 828,
 905, 963
 Geology, 357
 German, 356, 728c
 Greek, 356, 728c
 Gujarati, 728c
 Hebrew, 356, 728c
 Hindi, 16, 54, 464, 728c, 748, 827,
 881, 905, 963, 1089
 History, 16, 54, 190, 257, 356, 464,
 497, 527, 618, 728c, 748, 777,
 827, 881, 905, 926, 963
 Islamic History & Culture, 257, 356,
 527, 618, 748
 Italian, 728c
 Kannda, 881
 Language, 257, 527, 618
 Latin, 16, 356, 728c, 963
 Library Science, 477
 Marathi, 16, 728c, 827, 881
 Mathematics, 16, 54, 190, 257-58,
 356, 464, 497, 527, 618,
 748, 827, 881, 905, 926,
 963
 Mental Moral Science, 16, 54, 356, 618
 Modern Indian Lang. & Lit., 190, 356
 Music, 195
 Oriya, 1089
 Pali, 190, 356, 527, 728c, 827
 Panjabi, 464, 905
 Persian, 16, 54, 356, 464, 527, 728c, 748,
 777, 827, 881, 963
 Philosophy, 190, 257, 464, 497, 527,
 728c, 748, 777, 827, 881,
 905, 926, 963
 Physics, 356
 Physiology, 356
 Prakrit, 827
 Psychology, 190, 357, 748, 905, 926
 Political Science, 16, 54, 190, 257, 356,
 464, 618, 748, 777, 828,
 881, 905, 926, 963
 Public Administration, 828
 Religion & Culture, 881
 Sanskrit, 16, 54, 190, 356, 464, 527,
 728c, 748, 777, 827, 881,
 905, 963, 1089
 Social work, 464, 728k
 Sociology, 16, 257, 728c, 881
 Statistics, 257, 357, 497
 Syriac, 356
 Tamil, 881
 Telugu, 881
 Urdu, 16, 54, 464, 728c, 748, 777,
 827, 881, 963, 1089
 Vedic, Puranic, Buddhist, Jain,
 Zoroastrian and Islamic cultures,
 and major language, 1088
 Zoology, 357
 (d)
 M.A. (Hons.), 104
 (e)
 Ph. D., 8, 62, 105, 153, 191, 358, 423,
 475, 618, 690, 728k, 750, 789,
 829, 882, 887, 905, 927, 948,
 1012, 1072, 1088
 (f)
 M. Litt., 153, 689
 (g)
 D.Litt., 9, 63, 153, 192, 358, 423, 619,
 691, 789, 829, 905, 948, 1072
IV. Ayurveda
 (a)
 Bachelor of Ayurveda (B.A.V.), 117
 (b)
 Ayurvedacharya (M.B.B.S.), 213
V. Commerce
 (a)
 B. Com., 10, 59, 96, 188, 221, 263,
 364, 497, 530, 649, 716, 728k,
 746, 846, 884, 905, 928, 947,
 966, 989, 1012, 1058, 1072

(b)
B. Com. (Hons.), 97, 497, 717

(c)
M. Com., 10, 60, 104, 190, 223, 264,
465, 497, 531, 651, 728k,
846, 885, 905, 929, 947,
966, 1012

(d)
M. Com. (Hons.), 104

(e)
D. Ph. (Ccm.), 63, 653, 728k.

VI. Certificate of Proficiency and Diploma Courses

(i) POST-GRADUATE :—

(a) *Certificate of Proficiency*

Activity Education, 1089
Anthropology, 726
Chinese, 1089
French, 66, 622, 724
German, 66, 622, 724
Italian, 66
Language, 370
Librarianship, 725
Military Studies, 390
Oriental Title Exam., 124, 154
Psychology, 363
Russian, 622
Social Service & Village uplift, 66
Tamil Music, 154

(b)

Diploma

Anaesthesia, 112, 326
Analytical Chemistry, 727.
Anthropology, 726
Arabic (Maulvi, Alim, Fazil), 620
Child Health, 379
Chinese, 195, 1089
Clinical Pathology, 636
Cooperation, 723
Dermatology, 112, 327, 700
Dietetics, 382
Economics, 725
Education, 931, 997, 1072
Foreign Affairs, 749
Forensic Medicine, 328
French, 621, 724

Geography, 725
German, 621, 724
Gynaecology & Obstetrics, 112, 635,
700
Horticulture, 727
Indian Music, 66, 726
Indian Phil. & Culture, 195
In'ology, 797
Industrial Health, 379
Journalism, 359, 726, 830, 905
Language, 371
Laryngology & Otology, 112, 635, 700,
905

Library, 194, 368, 477, 725

Local Self-Govt. Administration, 166
Maternity and Childwelfare, 378
Medical Radiology & Electrolgy, 326,
386, 634,
700

Museology, 728 1
Ophthalmology, 112, 378, 638, 700,
749, 905
Orthopaedic Surgery, 640, 700
Painting, 66
Painting & Sculpture, 196
Persian, (Dabir, Dabir-i-Mahir, Dabir-
i-kamil), 620
Photography, 67
Physical Edu., 727
Psychological Medicine, 325
Public Administration, 621, 723
Psychology, 619
Public Health, 323, 375
Public Relation and Local Govt., 225
Russian, 478, 621
Sanskrit, (Shastri, Acharya), 621
Soap Manufacture, 199, 363
Social Work, 369, 728
Spoken English, 358
Statistics, 724
Town & Regional Planning, 389
Tuberculosis, 379, 483, 637, 700, 905
Venereology, 112, 327, 700

(ii) UNDER-GRADUATE

Architecture, 728k, 836
Automobile Eng., 836
Carpentry, 728k
Chinese, 1089
Civil Eng., 728k, 749, 836, 1049
Commercial Art, 837
Dental Surgery, 420
Domestic Science, 369

Drawing, 837
 Dyeing, 728k
 Electrical Eng., 728k, 749, 836, 1049
 English, Teachership, 367
 Fine Art, 837, 1089
 French, 479, 797, 884
 German, 479, 797, 884
 Hindi, 483, 797
 Italian, 479
 Journalism, 831
 Librarianship, 258, 749
 Local Self-Govt., 829
 Mech. Eng., 728k, 749, 836, 1049
 Medical Practice, (Licensed Medical Practitioner), 796
 Music, 728k, 948
 Painting, 728k
 Panjabi, 483
 Persian, 797
 Russian, 478
 Secretarial Practice, 590
 Tanning, 365
 Teaching, 265, 365, 532, 728c
 Teacher's Training Certificate, 368
 Textile Chemistry, 728k, 1052
 Turners, Fitters, Wiremen, 728k
 Urdu, 483, 797
 Weaving Tech., 728k, 1052

VII Education

(a)

B. Ed., 113, 193, 476, 749, 889, 964, 997

(b)

B.T., 8, 18, 266, 366, 498, 533, 563, 711, 728k, 778, 841, 905, 947, 1012, 1043, 1089

(c)

M. Ed., 115, 193, 268, 477, 620, 712, 728k, 749, 842, 889, 931, 947, 965, 1012

(d)

Ph. D. (Edu.), 749

VIII Engineering

(a)

B. Sc. or B.E., 13, 23, 121, 154, 201, 222, 274, 384, 416, 535, 705, 728k, 749, 778, 881, 905, 933, 948, 968, 993, 1001, 1012, 1045

Aeronautical, 205, 706

Automotive, 707

Chemical, 154, 288, 778

Civil, 121, 154, 203, 274, 384, 705, 728k, 749, 778, 892, 933, 969, 1001, 1046

Electrical, 14, 23, 122, 154, 201, 275, 385, 540, 706, 728c, 749, 778, 892, 969, 1003, 1047

Highway Branch, 706

Mechanical, 14, 23, 122, 154, 201, 274, 384, 538, 705, 728k, 749, 778, 892, 969, 1002, 1047

Metallurgical, 385

Municipal, 203

Naval architecture & Marine Engr., 205

Public Health, 388

Telecommunication, 706

Textiles, 707

(b)

B.E. (Hons.), 1012

(c)

Master of Engineering, 388, 423, 542, 784, 948

(d)

Dr. of Engineering (D.E.), 789

IX Forestry

B.Sc., 998

X Law

(a)

B.L. or LL.B., 9, 61, 117, 212, 223, 298, 371, 416, 468, 500, 543, 644, 695, 748, 795, 839, 887, 905, 929, 947, 966, 996, 1012, 1044, 1072

(b)

LL.B. (Hons.), 212

(c)

B.C.L., 469

(d)

M.L. or L.L.M., 10, 62, 119, 212, 223, 309, 372, 423, 470, 545, 645, 696, 839, 888, 905, 930, 948, 1045, 1072

(e)

LL.D., 65, 120, 213, 372, 423, 474, 648, 696, 840, 905, 931

INDEX

XI Medicine

(a)
M.B.B.S., 12, 115, 224, 302, 372, 418,
479, 500, 547, 628,
697, 785, 844, 893, 905,
934, 948, 967, 995, 1072

(b)
Condensed M.B.B.S., 845

(c)
Bachelor of Dental Surgery, (B.D.S.)
310, 380, 420, 631, 703

(d)
Bachelor of Nursing, 381, 461, 702

(e)
Bachelor of Sanitary Sc., 700

(f)
Bachelor of Unani Medicine & Surgery,
749

(g)
M.D., 13, 116, 313, 381, 423, 550,
629, 698, 905, 936, 948

(h)
M.S., 13, 116, 318, 381, 423, 552, 629,
691, 905, 935, 948

(i)
Dr. of Anatomy, Physiology, 783

(j)
Dr. of Hygiene., 325

(k)
Dr. of Public Health, 381

XII Music

Bachelor of Music (B.Mus.), 722, 728k

XIII Oriental Learning

(a) B.O.L., 154, 718, 1672
(b) B.O.L., (Hons.), 719
(c) M.O.L., 154
(d) D.O.L., 905, 948
(e) Junior *Diploma* Examination in
Oriental Learning, 832
Senior *Diploma* Examination in Ori-
ental Learning, 832
Higher *Diploma* Examination in Ori-
ental Learning, 832

XIV Oriental Title

(a) Vidya Praveena, 123
(b) Btasha Pravina, 124
(c) Madhyama Examination, 183
(d) Degree of Shastri, 183, 1053
(e) Shashtracharya, 183
(f)
(1) Siromani, 717
(2) Vidvan, 717, 1053
(3) Afzal-ul-Ulama (Arabic), 718
(4) Munshi-i-Fazil (Urdu & Persian)
718
(5) Abid-i-Fazil, 718
(Urdu, Persian, Tamil and Mala-
yalam)
(6) Tabib-i-kamil (Tibb-i-Qanuni
in Persian and Urdu), 718
(7) Afzal-ul-Atibba
(Tibb-i-Qanuni in Arabic and
Urdu), 718
(8) Malpan (in Syriac), 718
(9) Soppar (Syriac and Hebrew), 718
(10) Sangita Siromani, 720
(g) Mahopadhyaya, 1053
(h) Sakitya Visarada, 1053

XV Pharmaceutical Chemistry

(a) B.Sc., 9, 17
(b) P. Pharm., 102, 200, 553, 701,
905, 968
M. Pharm., 108, 200, 905

XVI Science

(a)
B.Sc., 17, 54, 100, 150, 196, 208,
221, 260, 360, 415, 454, 495,
527, 563, 622, 691, 728c, 746,
773, 833, 882, 905, 927, 947,
963, 990, 1012, 1039, 1072
Anatomy & Embriology, 260, 418, 528.
Animal Physiology, 260, 528
Anthropology, 360, 495, 692, 990.
Applied Mathematics, 833
Arabic, 691
Astronomy, 623
Bacteriology & Hygiene, 55, 110,
Bengali, 454, 691
Botany, 17, 55, 95, 100, 150, 196, 260,
360, 415, 455, 495, 527,
563, 622, 691, 728c, 746,
773, 833, 882, 927, 963, 990,
1040

- Burmese, 691
 Chemical Engineering, 198
 Chemistry, 17, 55, 95, 100, 150, 196,
 260, 360, 415, 418, 455,
 495, 527, 563, 622, 691,
 728c, 746, 773, 833, 882,
 927, 963, 990, 1040
 Economics, 17, 55, 622, 774, 963
 Electrical Eng., 691
 Elementary Bio-Chemistry, 55
 Elementary Chemistry, 55
 English, Practically in all Universities
 Euthenics, Applied Chemistry, the
 family and Living Science, 623
 French, 691
 Fuel Tech., 208
 Geography, 55, 196, 260, 360, 415,
 495, 563, 622, 691, 746,
 774, 927, 990
 Geology, 17, 95, 100, 196, 260, 360,
 495, 527, 563, 622, 691,
 746, 773, 833, 882, 927,
 963, 990
 German, 691
 Greek, 691
 Hebrew, 691
 Hindi, 454, 691
 Hist. of Science and Scientific Method,
 454
 Home Science, 691, 728k
 Human Physiology including food
 and Nutrition, 55, 100, 360, 418,
 622, 691, 774, 927
 Industrial Chemistry, 198
 Kannada, 691, 777
 Latin, 691
 Malayalam, 691
 Marathi, 691
 Mathematics, 17, 55, 95, 100, 150,
 196, 260, 360, 415,
 454, 495, 527, 563,
 622, 691, 746, 773,
 833, 882, 927, 963,
 990, 1039
 Mechanical Engineering, 691
 Medical Science, 224, 320, 554
 Metallurgy, 208
 Microbiology, 260, 528
 Military Science, 17, 55, 692, 746, 833
 Mining, 208
 Music, 55
 Oriya, 691
 Painting, 55
 Panjabi, 454
 Persian, 691
 Pharmaceutical Chemistry, 17
 Physics, 17, 55, 95, 100, 150, 196,
 260, 360, 415, 418, 455, 495,
 527, 563, 622, 691, 728c,
 746, 773, 833, 882, 927, 963,
 990, 1039
 Principles of Arts and Designs, 55
 Psychology, 55, 360, 774
 Sindhi, 454
 Sanskrit, 691
 Statistics, 17, 360, 495, 623, 691, 728 l,
 746, 774
 Sociology, 774
 Sinhalese, 691
 Surveying, Preliminary prospecting,
 Ore dressing and assaying, 691
 Syriac, 691
 Tamil, 691
 Telugu, 691
 Textiles, 56
 Urdu, 454, 691
 Zoology, 17, 55, 95, 100, 150, 196,
 260, 360, 415, 418, 455, 495,
 527, 563, 622, 691, 728c,
 746, 773, 833, 882, 927,
 963, 990, 1040
 (b)
 B.Sc. (Hons.), 100, 151, 197, 360,
 456, 623, 692, 747,
 775, 828, 905, 927, 947,
 992, 1041, 1072
 (c)
 M.Sc., 17, 58, 105, 152, 153,
 155, 197, 223, 261, 361,
 423, 465, 497, 529, 624, 693,
 728c, 748, 777, 834, 883, 928,
 947, 964, 996, 1012, 1042,
 1072
 Agricultural Botany, 58
 Agri. Eng., 155
 Agricul. Zoology, 58
 Anatomy, 111
 Animal Physiology, 261, 529
 Anthropology, 361, 467
 Applied Geology, 109, 197, 261, 361,
 529, 625, 693, 748,
 834, 928, 964
 Applied Mathematics, 361
 Applied Physics, 106
 Bacteriology, 111
 Botany, 17, 58, 152, 155, 197, 261,
 361, 467, 497, 529, 625, 693,
 728c, 748, 777, 834, 883,
 928, 964
 Bio-Chemistry, 111, 834

Chemistry, 17, 58, 108, 152, 155,
197, 261, 361, 467, 529,
625, 693, 728c, 748, 777,
834, 883, 928, 964

Economics, 777

Education, 361, 497

Engineering, 152, 155

Forensic Medicine, 111

Geography, 197, 361, 748, 777

Geophysics, 106, 197

Mathematics, 17, 58, 105, 152, 155,
197, 261, 361, 497,
529, 625, 693, 748,
777, 834, 928, 964

Medical Science, 225, 321, 554

Meteorology, 728c

Microbiology, 261

Pathology, 111

Pharmacology, 111

Physics, 17, 58, 105, 152, 155, 197,
261, 361, 467, 529, 625, 693,
728c, 748, 777, 834, 883,
928, 964

Psychology, 361, 748, 777

Physiology, 111, 361, 928

Public Health Eng., 155

Statistics, 106, 261, 361, 497, 7281,
777, 834, 1042

Structural Eng., 155

Zoology, 17, 58, 152, 155, 197, 261,
361, 467, 529, 625, 693,
728c, 748, 777, 834, 883,
928, 964

M.Sc. (Hons.), 905

D. Phil. Sc., 64, 197, 358, 625, 690,
728k, 750, 834, 883, 1072

D. Sc., 9, 64, 110, 112, 153, 197, 361,
423, 626, 694, 789, 834, 905,
928, 948, 1072

XVII Technology

B.Sc. (Tech.), 281, 362, 715, 834
Chemical Engineering, 284, 715, 835

Electro-Chemistry, 715

Food Technology, 284

Industrial Fermentation, 715

Jute, 362

Leather, 362, 715

Tech., of Intermediates and Dyes, 285

Tech., of Plastics., 285

Tech., of Pigments, Paints and Varni-
shes, 285, 835

Tech., of Oils, Fats and Waxes, 286

Tech., of Pharmaceuticals and Fine
Chemicals, 286, 715

Textile Chemistry, 283, 362, 715

M.Sc. (Tech.), 107, 198, 287, 362,
836 883

Applied Chemistry, 362, 883

Applied Physics, 362

Ceramic Tech., 883

Chemical Eng., 883

Fuel Tech., 883

Oil Tech., 883

Radio Physics and Electronics, 362

Dr. of Sc. (Tech.), 211

XVIII Textiles

B. Text., or B. Sc., (Text.), 279, 793,
905

XIX Theology

(a) Madhyama Pariksha., 183

(b) Degree of Vedashastri, 183

(c) Rituals of Hindu Religion, 183

(d) Degrees of Vedacharya, 184

(e) Degree of Karma Kand Shastri, 184

(f) Bachelor and Master of Theology,
in Sunni and Shia Theology,
(B. Th., and M. Th.), 748

XX Veterinary Science and Animal Husbandry

(a) B.V.Sc. and A.H., 15, 27, 225,
271, 417, 500,
714, 895, 905,
1012

(b) M.V.Sc., 905

